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 1   UNITED STATES DISTRICT COURT
                         EASTERN DISTRICT OF VIRGINIA
 2   ALEXANDRIA DIVISION

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        UNITED STATES, et al.,   :   Civil Action No.:
 4   :   1:23-cv-108
                    Plaintiffs,   :
 5   versus   :   Friday, September 20, 2024
                                    :   Alexandria, Virginia
 6   GOOGLE LLC,   :   Day 10 p.m.
                                    :   Pages 1-165
 7   Defendant.   :
        --------------------------x
 8
               The above-entitled bench trial was heard before the
 9   Honorable Leonie M. Brinkema, United States District Judge.
        This proceeding commenced at 2:00 p.m.
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25   COMPUTERIZED TRANSCRIPTION OF STENOGRAPHIC NOTES
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 1                         TABLE OF CONTENTS

 2                            WITNESSES

 3   On behalf of the Defendant:

 4   SCOTT SHEFFER

 5   Direct examination by Ms. Dunn ...........44
     Cross-examination by Mr. Teitelbaum .......103
 6   Redirect examination by Ms. Dunn .........115

 7   BEANEASER JOHN (read in)..................119

 8

 9   On behalf of the Plaintiffs:

10   ROBIN LEE

11   Cross-examination by Mr. Isaacson ........4
     Redirect examination by Ms. Wood .........13
12   Recross examination by Mr. Isaacson .......41

13                           MISCELLANY

14   Proceedings September 20, 2024 ...........4
     Certificate of Court Reporter ............165
15

16

17

18

19

20

21

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Cross-Examination - R. Lee

1   P R O C E E D I N G S

2

3   CROSS-EXAMINATION (Resumed)

4   BY MR. ISAACSON:

5   Q   Good afternoon, Professor Lee. It's Bill Isaacson

6   again.

7   If you could, go to your white binder and go to

8   the first exhibit, which was PTX 188. You discussed this in

9   your direct testimony at page 979.

10   Actually, let's start with the first page. This

11   is a 2014 document, right? This is a decade ago.

12   A   Excuse me?

13   Q   This is a 2014 document? This is a decade ago?

14   A   Yes.

15   Q   Okay. Turning to page 979 -- ,which had the elasticity

16   figures -- all right, and over on the left -- do you

17   remember reviewing this?

18   A   Yes.

19   Q   Okay. So LPS, those are large publishers?

20   A   Yes.

21   Q   And OPG, who are those?

22   A   Excuse me?

23   Q   OPG, who are those?

24   A   Those are the other publishers. So LPS stands for top

25   100 to 200 publishers. OPG, Online Partnership Group, as I

4

Cross-Examination - R. Lee

1   recall it, refers to the rest of the publishers.

2   Q   So that would be small and medium?

3   A   That's fair.

4   Q   So if you flip forward to 982 -- so it's three more

5   pages -- there's a slide that says, "Price and product

6   feature sensitivity vary widely with client size suggesting

7   a segmented approach."

8   And under "Large clients," it says, "Price not

9   among top factors."

10   For medium clients, it says, "Price is important."

11   And for small clients, it says, "Price is a key

12 factor."

13   Do you know how to reconcile that with the

14 elasticity numbers for the OPG publishers on the previous

15 page?

16 A   Without spending time with the full document, I see

17 what that says. I'm not -- just sitting here, I haven't

18 reviewed it all.

19 Q   Okay. And you don't know how the elasticity

20 calculations were done in this document, right?

21 A   I don't recall this presentation describing that.

22 Q   Okay. And when an advertiser says that pricing is not

23 an important factor, one reason for that could be that the

24 advertiser is saying the return on investment on their ad is

25 more important than the take rate?

Cross-Examination - R. Lee

1   A   That could be a reason. I don't know for sure.

2   Q   Are you aware of any evidence that prices for AdX are

3   inelastic for AdX if the ads are not delivering on the

4   return on investment the advertiser is seeking?

5   A   Could you repeat your question, please.

6   Q   Sure. Are you aware of evidence showing that prices

7   for AdX -- that is the take rates -- are inelastic if the

8   ads are not delivering on the return on investment the

9   advertiser is seeking?

10   A   I don't follow your question. Elasticity refers to

11   characteristics of demand.

12   Q   All right. I'll move on then.

13   If we can, look at your opening report at

14   paragraph 37 on page 9. I want to understand your statement

15   here.

16   A   All right.

17   Q   This is from your introduction, right? Your summary?

18   A   Yes.

19   Q   Okay. And you say at the bottom there on page 9, "I

20   then show that Google has used its market power in one

21   market to foreclose and diminish the competitiveness of

22   rivals' products in another by" -- and then you turn the

23   page, and there's three bullet points.

24   I just want to understand the markets that you're

25   referring to here.

6

Cross-Examination - R. Lee

1   In the third one, "Providing dynamic allocation

2   features and associated first and last look benefits

3   exclusively to AdX within DFP," that would be Google using

4   what you call its market power in the ad server market to

5   diminish the competitiveness in the ad exchange market.

6   Do I have that right?

7   A   Competitiveness of rivals in the ad exchange market,

8   that's correct.

9   Q   Okay.   And then moving up to the one above it,

10   "Providing access to and use of real-time bids from AdX

11   exclusively to DFP," that would be Google using alleged

12   market power in the ad exchange market to diminish the

13   competitiveness of rivals in the publisher ad server market.

14   Do I have that right?

15   A   Yes.

16   Q   Okay.   For the first one, "providing unrestricted

17   access to Google Ads advertiser demand exclusively to

18   AdX" -- the second market here is you're diminishing the

19   competitiveness of rivals' markets in the ad exchange

20   market, right?

21   A   Could you repeat your question, please?

22   Q   Sure.   In terms of -- so you have -- remember, you have

23   a one-market and a two-market, right?   So the second market

24   for the first bullet would be the ad exchange market, right?

25   A   So Google Ads --

7

Cross-Examination - R. Lee

1   MS. WOOD: Objection. Vague.

2   MR. ISAACSON: I'm happy to rephrase it.

3   THE COURT: Okay.

4   BY MR. ISAACSON

5   Q   For the first item of conduct there, "providing

6   unrestricted access to Google Ads advertiser demand

7   exclusively to AdX," you are saying that diminishes the

8   competitiveness of rivals' products in the ad exchange

9   market, correct?

10   A   Yes.

11   Q   Okay. So when you are saying Google has used its

12   market power in one market to foreclose and diminish the

13   competitiveness of rivals' products at another, the second

14   market here is the ad exchange market?

15   A   The second -- my prior answer, I think, answered your

16   question.

17   Q   Yeah. Okay. I think it did too, but I just want to

18   make sure we all understand.

19   All right. Now, the first part, "providing

20   unrestricted access to Google Ads' advertiser demand,"

21   that's demand for ads, right?

22   A   I think that's fair.

23   Q   All right. And I think we've established -- and you

24   agree -- that you've not defined a market in this case for

25   advertising?

8

Cross-Examination - R. Lee

 1 A   I'm not opining on a relevant market where the products

 2 are the underlying advertisements.

 3 Q   All right. Now, for your last piece of testimony

 4 yesterday, you talked about why you think Google's conduct

 5 harmed open-web publishers and advertisers, and you talked

 6 about three ways that happened.

 7   Do you remember that testimony?

 8 A   Yes.

 9 Q   So you say, first, by sustaining higher prices for

10 transacting open-web displays. Higher prices would harm

11 customers leading to lower publisher payouts or higher

12 advertising prices.

13   You did not do any analysis to show that open-web

14 displays that were -- ads that were transacted experienced

15 any higher prices because of Google's conduct, correct?

16 A   I wouldn't agree with that statement.

17 Q   You did not do -- you would agree you didn't do any

18 quantitative analysis to suggest that open-web displays ads

19 had higher prices, right?

20 A   I've done quantitative analyses that supports this

21 conclusion that Google's conduct sustained these higher take

22 rates. AdX has charged, when there's more competition and

23 limited circumstances, lower take rates.

24 Q   Right. And so you understand I'm not talking about

25 take rates now. I'm talking about the actual price of the

9

Cross-Examination - R. Lee

1   advertisement.

2   Okay. You have not done any quantitative work

3   that would suggest that Google's conduct resulted in higher

4   ad prices?

5   A   So I've conducted analysis that supports the conclusion

6   that higher take rates do indeed lead to higher advertising

7   prices, and that's in my report.

8   Q   You did not do any quantitative analysis to show that

9   that actually happened, that there was actually higher ad

10   prices because of higher take rates?

11   MS. WOOD: Objection. Asked and answered.

12   THE COURT: Do I understand your answer that you

13   assumed that the higher take rate would result in a higher

14   price?

15   THE WITNESS: Your Honor, I used results from the

16   2014 Google experiment, which implies the higher take rate

17   on Google Ads actually led to higher advertising prices.

18   THE COURT: Okay.

19   BY MR. ISAACSON:

20   Q   Other that than that experiment a decade ago, did you

21   rely on -- did you rely on any quantitative information or

22   do your own quantitative analysis to show that higher take

23   rates would cause higher advertising prices?

24   A   That's the one I recall sitting here today.

25   Q   Then you say, second, Google's conduct has reduced the

                                                            10

Cross-Examination - R. Lee

1   quality of options that customers had to transact open-web

2   displays ads likely reducing the efficiency of the

3   transactions that occurred.

4   I think we've already covered that. This is where

5   you say the conduct in this case --

6   THE COURT: Well, since we've already covered it,

7   you don't need to ask it again.

8   MR. ISAACSON: Well, I just want to make sure he's

9   talking about the same thing.

10   THE COURT: Let's move it along.

11   MR. ISAACSON: Okay.

12 BY MR. ISAACSON:

13 Q   Then, third, Google's conduct likely --

14   Oh, in terms of the harms to publishers, when you

15 say there were harms to publishers from higher fees, you

16 define "materially" -- you say there were materially higher

17 fees, right?

18 A   Are you pointing to a part of my report?

19 Q   I can point you to your deposition. But when you say

20 there were higher take rates, okay, you say that they were

21 materially higher, right? If you don't, you don't.

22 A   Yes.

23 Q   And the way you define "materially higher" is not *de*

24 *minimis*?

25 A   I use that language in my deposition. I recall that.

11

Cross-Examination - R. Lee

1   Q   And you have not attempted to quantify any losses to

2   publishers from Google's conduct, right?

3   A   So there are --

4   THE COURT: The answer is yes or no.

5   THE WITNESS: I believe I have conducted

6   quantitative analyses that indicates publishers are harmed

7   from higher take rates.

8   BY MR. ISAACSON

9   Q   And did you quantify a number of what that harm is like

10 some lower amount of money?

11 A   I did not give a dollar number representing the exact

12 amount of harm.

13 Q   And did you quantify a dollar effect on advertisers as

14 a result of the conduct of Google?

15 A   I did not give a specific dollar amount.

16 Q   And then you said, third, Google's conduct likely

17 reduced innovation in the relevant markets.

18   The -- and the reason you say Google's conduct

19 affected innovation is because they had an adverse effect on

20 rivals, right?

21 A   I don't think that's an accurate characterization.

22 Q   Well, you say that Google's conduct reduced the

23 benefits that its rivals could expect to gain from

24 innovation?

25 A   I did say that.

12

Redirect Examination - R. Lee

1   Q   And that's because its conduct impeded their ability to

2   compete, correct?

3   A   Yes.

4   Q   All right. And so when you're talking about lower

5   innovation, you're talking about if Google engages in

6   conduct that impairs a rival's ability to compete, your

7   opinion is that innovation goes down in the industry as a

8   whole?

9   A   I can explain, but I don't think that's exactly what

10   I'm saying.

11   Q   Okay. Have you done any analysis in any of your three

12   markets about the rates of innovation and had any opinions

13   about how innovation is done in those markets?

14   A   I don't think I've done exactly how you're

15   characterizing that.

16   MR. ISAACSON: I will pass the witness.

17   THE COURT: All right. Ms. Wood.

18   REDIRECT EXAMINATION

19   BY MS. WOOD:

20   Q   Good afternoon, Professor Lee. I know it's been a long

21   day. I'll try not to take too much more of your time, but I

22   do have some questions.

23   You were asked a lot of questions on

24   cross-examination about header bidding. Do you recall that?

25   A   I do recall that topic.

13

Redirect Examination - R. Lee

1   Q   Okay. And header bidding was talked about increasing

2   competition. Do you recall that?

3   A   I recall that.

4   Q   And can you just tell us in what ways did header

5   bidding increase competition?

6   A   So one important way is that it allowed publishers to

7   call upon multiple ad exchanges in real-time alongside one

8   another. And so for a given impression, there was greater

9   competition for that particular auction.

10   Q   And how do you as an economist distinguish, if at all,

11   between competition in an ad auction and competition among

12   market tools for open-web displays? Are those the same

13   thing or different things?

14   A   Well, they're different things.

15   Q   Can you explain that?

16   A   Sure. So what we have to understand, like, within an

17   auction, if you're comparing it against a waterfall, there

18   is greater competition for that impression. But when you're

19   thinking about the market, you're considering other factors

20   as well. For example, it includes whether these other rival

21   ad exchanges to AdX are actually able to submit competitive

22   bids in an auction if they're facing off against AdX.

23   So there are other considerations one would take

24   into account when examining competition at the market level.

25   Q   And do you believe that header bidding cured the effect

Redirect Examination - R. Lee

1   of Google's anticompetitive conduct?

2   A   Not fully. It partly addressed some of the

3   disadvantages from first look, but that led to last look.

4   And so there were some -- header bidding did increase

5   publisher yields relative to the former waterfall era with

6   first look, but it did not address all of the harms by any

7   means.

8   Q   Now, do you recall being asked some questions about

9   your calculation of market share?

10   A   Yes.

11   Q   And do you recall being asked, when you calculated

12   market share, whether your market share numbers did or did

13   not include transactions transacted through header bidding?

14   A   I don't recall that exact question, but it sounds like

15   it might have come up.

16   Q   Okay. And can you describe to us how, if at all, your

17   market share calculations do or do not incorporate

18   transactions done through header bidding?

19   A   Sure. So if a header bidding transaction is won by an

20   ad exchange, then that's included in market share

21   calculations for ad exchanges.

22   Q   Can you give us an example?

23   A   So if PubMatic wins an impression through a header

24   bidding wrapper, then that impression is still a transactor

25   served by PubMatic's ad exchange.

15

Redirect Examination - R. Lee

1   Similarly, if a transaction is served by DFP but

2   comes from a header bidder, that impression is still

3   included when calculating publisher ad server market shares.

4   Q   And to that extent, do your market share numbers for

5   each of the three relevant product markets include the added

6   competition, if any, associated with header bidding?

7   A   Well, they reflect impressions transacted through

8   exchanges if they're coming through header bidding and if

9   they're not coming through header bidding.

10   Q   Now, did you have occasion to observe what impact

11   header bidding had on AdX's supracompetitive take rate?

12   A   I did observe that.

13   Q   And what did you observe in that regard?

14   A   That AdX maintained its average 20 percent take rate

15   through the period of my data.

16   Q   So let's look at PTX 639. I think it should be in your

17   binder.

18   THE COURT: Are you moving this in? I'm not sure

19   if it's in yet or not.

20   THE WITNESS: Which binder?

21   THE COURT: 639.

22   MS. WOOD: I think it may be in, Your Honor, but

23   we will check.

24   THE COURT: Well, regardless, do you want it in?

25   MS. WOOD: Yes, we do. We are moving PTX 639.

Redirect Examination - R. Lee

 1   THE COURT: Is there any objection to 639 if it's

 2   not in?

 3   Mr. Isaacson, Plaintiffs' 639, it's in the small

 4   white book.

 5   It's already in.   It's already in.

 6   MS. WOOD: That's what I thought.

 7   THE COURT: Okay.

 8   BY MS. WOOD:

 9   Q   And do you see here this is an exchange of comments

10   between two individuals, Chris LaSala and Jim Giles, both of

11   Google?

12   A   I see that.

13   Q   And as of August of 2018, what was the status of header

14   bidding in the marketplace?

15   A   It has gained significant adoption.

16   Q   Okay.   And can you read the first sentence of

17   Mr. LaSala's comment where he addresses whether he's seeing

18   pressure or not on AdX's 20 percent at that time?

19   A   It says, "We are not seeing pressure on the AdX

20   20 percent, but I am making a statement that it is because

21   it provides nearly exclusive access to GDN demand."

22   Q   And what, if anything, does that tell you about whether

23   header bidding was alleviating the competitive pressure of

24   rival exchanges to compete against AdX with their 20 percent

25   take rate?

                                                                17

Redirect Examination - R. Lee

1   A   To me this indicates that AdX market power had not been

2   significantly eroded, at least to an extent that it did not

3   reduce its 20 percent fee.

4   Q   Okay. Now, you were also asked some questions about

5   Amazon as a competitive constraint.

6   Do you recall that?

7   A   Yes.

8   Q   Can you tell us: What Amazon products are available to

9   transact open-web display transactions?

10   A   So Amazon offers a DSP, and it also offers header

11   bidding solutions.

12   Q   And if we could, look at PTX 1388.

13   THE COURT: I don't think that's in my book.

14   MR. ISAACSON: I don't have it either.

15   MS. WOOD: I'll move on.

16   THE COURT: All right.

17   BY MS. WOOD

18   Q   Now, going back to the subject of header bidding, do

19   you have -- can you describe to the Court -- you indicated

20   earlier that header bidding was not included in the product

21   market. Do you recall that?

22   A   Yes.

23   Q   And it was not included in the product market for any

24   of the three products that you opined upon in this case; is

25   that right?

                                                            18

Redirect Examination - R. Lee

1   A   Yes.

2   Q   So can a product like header bidding pose a competitive

3   threat even though it's outside the relevant product market?

4   A   It's possible. It can, as I mentioned with regards to

5   header bidding, enable an ad exchange or some other ad tech

6   player, maybe a nascent publisher ad server, to grow into a

7   more effective competitor within a relevant product market.

8   Q   And can you describe how that happens?

9   A   Well, for example, header bidding -- if publishers

10 started relying upon header bidding wrapper solutions on

11 their page to manage multiple exchanges and then that header

12 bidding tool perhaps added functionality, like direct deal

13 serving, starting to replicate some of the features of the

14 publisher ad servers, then it's possible that DFP publisher

15 ad servers would be disintermediated and publishers could be

16 more reliant on header bidding instead.

17   This was a path that was actually outlined back in

18 Google documents talking about yield managers where they

19 were worried that yield managers were beginning to own the

20 remnant tag that publishers might be calling yield managers

21 to manage all of these indirect transactions thereby cutting

22 out the publisher ad server for AdX.

23   And so that's a manner in which header bidding

24 working alongside other demand sources could pose a

25 competitive threat to the products in the relevant product

Redirect Examination - R. Lee

1   markets.

2   Q   So in that sense, would you consider header bidding to

3   be a complement or a substitute to the products that are in

4   your three relevant product markets?

5   A   In the way I've described, it is used alongside those

6   products. So it's complementary in the features that it

7   provides.

8   MS. WOOD: Okay. I think we have found our copies

9   of PTX 1388, Your Honor. This is from Professor Lee's

10 report.

11   Do you have a copy of that?

12   And if we can, put that up on the screen. Thank

13 you.

14 BY MS. WOOD

15 Q   We were talking about Amazon and whether Amazon posed a

16 competitive threat, and what does PTX 1388 show in that

17 regard?

18 A   Am I able to -- so the things are redacted, right?

19 Q   Yes, the names are redacted. If you can, without

20 saying what color is what -- and the Court can view for the

21 Court's own purposes --

22   THE COURT: All right. You have a 1388A?

23   MS. WOOD: We do have a 1388A, and then the Court

24 should be looking at 1388 in its unredacted form with the

25 boxes around the material that's redacted.

20

Redirect Examination - R. Lee

1   THE COURT: Right.

2   MS. WOOD: So what's being shown to the public is

3   1388A.

4   THE COURT: I can't tell -- it's too late in the

5   day -- whether it's in or not, but I assume it's being moved

6   in.

7   Any objection, Mr. Isaacson?

8   MR. ISAACSON: No objection.

9   THE COURT: All right. It's in.

10   BY MS. WOOD

11   Q   Okay. Now, without referring to names or colors, can

12   you tell us how, if at all, you considered in PTX 1388 the

13   competitiveness -- or the competitive constraint of Amazon's

14   ad tech tools?

15   A   So Amazon's DSP is contained in this chart and is much

16   smaller than Google Ads. I describe why DSPs are not a

17   competitive constraint or significant enough to constrain a

18   hypothetical monopolist of advertiser ad networks as well.

19   Q   Okay. Now, you were also asked some questions -- do

20   you remember being asked questions about header bidding

21   being a nightmare scenario? Do you remember that?

22   A   Yes.

23   Q   Nightmare scenario, was that your term?

24   A   I recall that language on this Google slide.

25   Q   So that was Google's own term for header bidding,

21

Redirect Examination - R. Lee

1   "nightmare scenario"?

2   THE COURT: We've heard that. We've heard

3   existential threat. All right?

4   BY MS. WOOD

5   Q   Okay. So you also were asked some questions about

6   entry barriers and Facebook and Amazon. Do you recall that?

7   A   I do.

8   Q   And I believe you indicated in this regard that you

9   had -- it was your opinion that there were entry barriers

10   even for a company as large as Facebook, for example. Is

11   that right?

12   A   That is correct. This is for the publisher ad server

13   market?

14   Q   Yes.

15   A   Yes.

16   MS. WOOD: And I'd like to offer now PTX 580.

17   THE COURT: Any objection to 580?

18   Is it not in the book?

19   MR. TEITELBAUM: We have one for the witness and

20   one for the Court. Opposing counsel should already have

21   theirs.

22   MR. ISAACSON: I don't.

23   THE COURT: All right. How many more of these

24   exhibits do we have? This seriatim is not going to work.

25   It's going to take too long. You should have them together.

Redirect Examination - R. Lee

1   All right. Mr. Isaacson, any objection to 580?

2   MS. WOOD: This is cited in Dr. Lee's report.

3   MR. ISAACSON: Well, it's hearsay. It's a

4   Facebook document. So I don't mind it coming in to say it's

5   something he considered for his report. I don't know why it

6   would come in as evidence.

7   MS. WOOD: Well, Your Honor, Mr. -- I believe this

8   is very similar to a document that came in directly through

9   Mr. Boland. It's just this version was cited in Professor

10 Lee's report; whereas the version that came in through

11 Mr. Boland had a different --

12   THE COURT: All right. I'll let it in.

13   MS. WOOD: Okay.

14 BY MS. WOOD

15 Q   Did you happen to be here when Mr. Boland testified,

16 Professor Lee?

17 A   I don't believe so.

18 Q   Okay. And PTX 580, do you recognize this as something

19 you cited in your report?

20 A   Yes.

21 Q   And do you recall, in connection with PTX 580, that

22 Facebook actually considered whether it could enter the

23 market for publisher ad servers and what would be involved

24 in that regard?

25 A   Yes.

23

Redirect Examination - R. Lee

1   Q   And if you can look -- sorry. Let me find the right

2   page. Just one moment.

3   So if you could look on the page ending -- and

4   there are two Bates stamps at the bottom. But if you look

5   at the most-bottom Bates stamp ending in 802.

6   A   Yes.

7   Q   And do you see there is a reference to building ad tech

8   as an option at the top of the page, work directly with

9   publishers, build ad tech?

10   A   Yes.

11   Q   And Facebook writes here, quote, We view this as an

12   untenable strategy for Facebook at this moment in time. We

13   should look to the LiveRail postmortem for analysis as to

14   the difficulty of this strategy. But at a high level, the

15   key points from that experience are:

16   1. Huge engineering investment to build

17   competitive feature set to DFP for head of market

18   publishers.

19   2. 5- to 10-year road map to drive meaningful

20   adoption.

21   3. Ad tech is a services business and would

22   require a significant service org investment.

23   Do you see that?

24   A   I do.

25   Q   How, if at all, did those comments impact your views

24

Redirect Examination - R. Lee

1   about entry barriers to the publisher ad server market?

2   A   Well, at least this document is consistent with there

3   being significant barriers to entry and expansion that would

4   take a long time and require a huge upfront cost.

5   Q   And how would you compare Facebook's relative readiness

6   and resources to enter the market compared to the average

7   other market participant who might want to enter a publisher

8   ad server market?

9   A   Facebook is a large firm, a very large firm, much

10 larger than average.

11 Q   And how does Facebook's technological capabilities

12 compare to other potential new entrants, if you know?

13 A   Well, Facebook has integrated ad tech tools that it

14 uses to sell advertisements on its own properties. So it's

15 already able to sell advertising, primarily social

16 advertising, to advertisers. So in that sense, it already

17 does have some advantage over firms who may not be in the

18 business of selling advertising at all.

19 Q   Okay. Do you recall being asked questions about

20 comparisons of win rates and take rates and share on an

21 impression basis versus a revenue basis?

22 A   I believe so.

23 Q   And can you explain to the Court: Why is it that you

24 looked at certain data from an impression perspective as

25 opposed to a revenue perspective?

Redirect Examination - R. Lee

1 A   I think impressions are useful in that as ad tech tools

2 see more transactions, they are able to use that data to

3 better refine certain features of their products. For

4 example, determining how much to bid on a given action --

5 auction, rather, and to optimize CPC to CPM bidding in the

6 case of Google Ads.

7 Q   Now, do you recall being asked some questions about the

8 supracompetitiveness of DFP's take rates?

9 A   Yes.

10 Q   And did you do an examination of the

11 supracompetitiveness --

12   MR. ISAACSON: I will object. This is outside the

13 scope of the cross. I did not inquire into anything about

14 the substance of DFP fees.

15   MS. WOOD: My recollection -- and I have it in my

16 notes -- was there were questions specifically discussing

17 whether he found DFP fees to be supracompetitive.

18   MR. ISAACSON: And I did not move on and ask him

19 any questions about it.

20   MS. WOOD: Your Honor, I believe he opened --

21   THE COURT: But I think some of that data was in

22 some of those charts. I think it did come in. I'm going to

23 permit it.

24   I'm going to permit it, Mr. Isaacson.

25   MR. ISAACSON: Can I just say, Your Honor, there

Redirect Examination - R. Lee

 1   are no charts about DFP fees, none, zero. This would be --

 2   all the charts were about AdX.

 3   MS. WOOD: Your Honor, I'd like to offer the chart

 4   that reflects some DFP fees into evidence. It is PTX 1392,

 5   and it comes directly from Professor Lee's report.

 6   THE COURT: Yeah, but the question is was it

 7   raised during the cross?

 8   MS. WOOD: The question of DFP's fees was

 9   absolutely raised on cross.

10   MR. ISAACSON: I asked no substantive questions

11   about it.

12   THE COURT: Well, it may not have been

13   substantive, but if it was raised in anything, I'm going to

14   permit it.

15   MS. WOOD: Do we have 1392 in the binder?

16   In any event, it's Figure 25 from Professor Lee's

17   report. It may also be in your binder.

18   THE WITNESS: What figure?

19   BY MS. WOOD

20   Q   It is PTX 1392, and it is from your rebuttal report,

21   Figure 25.

22   THE COURT: Are you moving it in, or is it already

23   in?

24   MS. WOOD: Yes, we're moving it in, Your Honor.

25

Redirect Examination - R. Lee

1   BY MS. WOOD

2   Q   And do you recognize PTX 1392?

3   A   I do.

4   Q   And what is it?

5   A   It represents DFP's ad serving fees where they

6   collect -- you can see here over 2 cents per thousand units

7   served. This is on a worldwide basis, and it controls for

8   changes in publisher composition over time.

9   Q   And what did this tell you about the competitiveness of

10 DFP's fees on a worldwide basis?

11 A   Well, it shows that it does charge positive fees.

12 Other analyses that I've conducted indicate that over

13 90 percent of impressions come from publishers who pay ad

14 serving fees in the U.S.

15   And then DFP collects data when publishers use

16 DFP, and Google also collects fees from AdX and Google Ads

17 that are transacted through DFP. So it obtains significant

18 benefits from DFP customers.

19 Q   And how does that influence your findings as to whether

20 DFP has market power in the relevant market?

21 A   Well, to me, these fees are consistent with substantial

22 market power given all the benefits that it realizes from

23 the use of its product.

24 Q   And I won't go into it again, but did you also talk

25 about quality degradations in DFP that you indicated was

28

Redirect Examination - R. Lee

1   indicative of market power?

2   A   I did.   I discussed that in my direct testimony.

3   Q   Okay.   Now, you were shown some documents that showed

4   charts that AdX's relative share over time has gone up in

5   some years and has gone down in some years.   Do you recall

6   that?

7   A   Yes.

8   Q   And what, if anything, does that tell you about whether

9   AdX possesses market power in the relevant product markets

10   in the relevant time period?

11   A   Well, as I mentioned before, market shares aren't the

12   complete story.   One needs to look at -- well, I look at the

13   totality of evidence, including relative scale advantages,

14   reasons why AdX is meaningfully differentiated from other ad

15   exchange competitors, and direct evidence of Adx's market

16   power.   AdX has kept a higher fee at 20 percent than the

17   weighted average take rate of its ad exchange rivals all the

18   while maintaining this relative scale advantage over time.

19   Q   And you were also shown some differences between AdX's

20   market share when looked at on a revenue basis or a fee

21   basis -- no, a revenue basis versus an impression basis.   Do

22   you recall that?

23   A   Yes.

24   Q   And how does that impact your analysis of whether AdX

25   has monopoly or market power in the relevant markets.

Redirect Examination - R. Lee

1   A   So, again, I report market share metrics across a

2   variety of measures. We talked about impressions and

3   spending. I'm looking at all of this. The relative

4   advantages of AdX over its rivals is still shown in those

5   other metrics.

6   But as I mentioned before, impression shares are

7   useful because it more directly goes to the data that's

8   collected on a transaction basis. AdX tends to serve -- let

9   me actually just stop there.

10 Q   So you were also asked some questions about quality of

11 impressions and high CPM impressions and low CPM

12 impressions. Do you recall that?

13 A   Yes.

14 Q   And can you describe any market competitive impact to

15 an ad tech tool provider being able to provide smaller

16 advertiser and low CPM advertising demand?

17 A   Yes. So Google Ads transacts a wide range of

18 advertising within open-web display advertising from

19 different ranges of costs. So retargeting, remarketing is

20 generally seen as higher CPM advertising, but Google Ads

21 buys a lot more than just retargeting ads.

22   And for publishers and advertisers who transact

23 these lower-value CPM impressions, that's still important to

24 them if they're not selling or transacting remarketing

25 impressions, for example.

Redirect Examination - R. Lee

1   So AdX, they face -- I think I described this

2   before -- no competition in this GAM log-level data for

3   almost two-thirds of the transactions it wins. And many of

4   the transactions AdX serves might be lower CPM than other

5   exchanges. It actually has a lower CPM on average than

6   other competitors. But those lower CPMs -- if they don't

7   face competition, those customers seeking to transact them

8   would be harmed if they don't have access to AdX.

9   In the auction removal analysis of AdX, I found

10   that, although, on average AdX had a 28 percent change in

11   publisher revenues if it was removed from the auctions, they

12   didn't pick as much bigger for the smaller publishers.

13   Those publishers at the smallest range that I

14   looked at see a payout reduction of over 60 percent when

15   they lose access to AdX. And that's partly due to the fact

16   that AdX is transacting those kinds of impressions of those

17   smaller publishers' path.

18   Q   And do you have an understanding, based on your review

19   of the evidence, of how small publishers -- let's say, a

20   local newspaper like *The Staunton News Leader* -- might value

21   smaller advertisers who only -- who pay lower CPMs relative

22   to Proctors & Gambles of the world?

23   A   Well, I've seen documents that talk about the value of

24   local advertisers for local businesses, and this is one of

25   the strengths that Google Ads brings, this set of

31

Redirect Examination - R. Lee

1   advertisers who would be valued by these small or medium

2   businesses.

3   Q   So even though the CPMs are lower, they still bring

4   value to publishers and perhaps meaningful differentiation

5   from larger advertisers?

6   A   I think that's fair.

7   Q   Okay. And, again, you were shown a lot of different

8   charts slicing and dicing AdX's market shares a bunch of

9   different ways. In any of those charts, did you see any

10   competitor to AdX who had a meaningful market share relative

11   to AdX's market share?

12   A   As I mentioned, AdX had a nine times greater market

13   share based on impressions worldwide and five times greater

14   based on the U.S. in '22.

15   THE COURT: But the answer was no?

16   THE WITNESS: Sorry. No.

17   BY MS. WOOD

18   Q   And you were also asked some questions -- you were

19   shown several charts looking at social media ad spending and

20   ad spending on Amazon owned and operated and ad spending on

21   apps and ad spending on connected TV. Do you recall that?

22   A   Yes.

23   Q   And can you describe how those relative ad spending in

24   those categories outside the product market influence your

25   views of Google's market power in the relevant product

Redirect Examination - R. Lee

1   markets?

2   A   Well, although spending in those other markets are

3   growing, from the evidence I've seen, Google still maintains

4   substantial and sustained market power over these products

5   used to transact open-web displays.

6   Q   Do you recall being asked some documents -- asked

7   questions about whether you'd seen documents reporting

8   market share for open-web displays?

9   A   I recall those questions.

10   Q   And I'd like to put in front of you a document already

11   admitted in evidence as PTX 1709, and there should be a

12   redacted version in your binder.

13   MR. ISAACSON: Are you saying he cited this

14   document?   We don't have a record that he cited this

15   document.

16   MS. WOOD: Well, let's see.

17   THE COURT: Is 1709 in --

18   MS. WOOD: 1709 -- oh, sorry.

19   THE COURT: -- evidence?

20   All right.   It's already in evidence.   She can ask

21   him about it.

22   BY MS. WOOD

23   Q   If you look at the bottom of PTX 1709, does this

24   reflect one market participant discussing market share

25   percentages in categories that are familiar to you?

Redirect Examination - R. Lee

1   You don't have to answer what the categories are,

2   please.

3   A   Yes.

4   Q   Okay. And do you recall looking at -- being asked

5   questions about AdX's 20 percent take rate and whether it

6   was a supracompetitive take rate or not?

7   A   Yes.

8   Q   Did you review evidence from Google's own employees

9   discussing whether AdX's -- how AdX's take rate compared to

10   the competition?

11   A   Yes.

12   Q   And if we can, look at PTX 712.

13   MR. ISAACSON: This is in evidence, Your Honor,

14   but he's just saying he's reviewed documents on this topic.

15   He did not review this document. This is not something he

16   cited.

17   THE COURT: Well, remember, the doctor has

18   testified that he didn't necessarily cite everything that he

19   had reviewed, right.

20   MR. ISAACSON: Well, I mean, it's also not in his

21   list of exhibits attached that he --

22   THE COURT: But, again, the report was long enough

23   as it was.

24   But in any case, this is becoming, again, quite

25   redundant. Is this something new here?

34

Redirect Examination - R. Lee

1   MS. WOOD: No. I'll move on, Your Honor.

2   BY MS. WOOD

3   Q   Now, when you were talking about -- can we pull up PTX

4   1280, which you were shown on cross-examination.

5   And in PTX 1280, we went through some of the take

6   rates for the various firms and for AdX; is that right?

7   A   Yes.

8   Q   And what is in the far right column of PTX 1280?

9   A   That represents their share of impressions.

10   Q   So let's take, for example, Firm K that's charging in

11   various years between 37, 29, 38 percent. What is its share

12   of the ad exchange market?

13   A   1 percent.

14   Q   And what, if anything, does that tell you about the

15   relative market power of Firm K versus AdX?

16   A   Again, market shares are an imperfect indicator of

17   market power. One wants to consider everything else, but

18   there's a big relative scale difference between the two

19   exchanges.

20   MS. WOOD: Okay. We can take that down now.

21   BY MS. WOOD

22   Q   You were also shown a bunch of documents talking about

23   the June 2023 GAM-level data, and there was some discussion

24   about open bidding data being even included in that.

25   Can you explain what open bidding data was in the

Redirect Examination - R. Lee

1   June 2023 GAM log-level data and how you used that?

2   A   So the GAM log-level data represents all the auctions

3   run through GAM, and open bidding is a set of exchanges that

4   are going through Google's open bidding program into that

5   auction.

6   Q   And you were also asked some questions about whether a

7   DFP publisher can make impressions available on Amazon or

8   Prebid or other ad exchanges. Do you recall that?

9   A   Yes.

10   Q   And how, if at all, is the possibility of a DFP

11   publisher making impressions available on Amazon Prebid or

12   other ad exchanges serve as a competitive constraint on DFP?

13   A   Not directly.

14   Q   And can you explain why not?

15   A   Well, this is about what a DFP customer, an open-web

16   publisher, can do with regards to other exchanges and demand

17   sources. It's not speaking that publisher's ability to

18   substitute a way to another publisher ad server if DFP

19   exercised market power.

20   Q   Why not? Why couldn't a DFP publisher just use header

21   bidding wrappers or Amazon or other ad exchanges and forgo

22   DFP altogether?

23   A   This goes to one of the important features of a

24   publisher ad server, its ability to manage both directly

25   sold and indirectly sold open-web displays ads. And those

Redirect Examination - R. Lee

1   other products don't offer all of those features.

2   Q   Now, you were asked some questions about UPR. Do you

3   recall that?

4   A   Yes.

5   Q   And you were shown one paragraph from your report with

6   a couple of footnotes that dated to documents from 2019. Do

7   you recall that?

8   A   Yes.

9   Q   Does your report go on to discuss additional material

10 about publishers' reaction to UPR?

11   If you can, look at pages 290 to 293 of your

12 report.

13 A   There's additional discussion there.

14 Q   Okay. You were also asked -- you were shown PTX

15 1281 -- oh, sorry -- 1269.

16 A   In the black binder or the white binder?

17 Q   I believe the black binder, but it's up on the screen.

18   Do you see PTX 1269?

19 A   I do.

20 Q   And do you see you were asked some questions about

21 Firm S.? Do you recall that?

22 A   Yes.

23 Q   And, again, without naming Firm S, can you tell us how

24 large is Firm S as a market participant?

25 A   I recall it's six times smaller based on impressions

Redirect Examination - R. Lee

 1 | than Google Ads.

 2 | Q   Okay. And so when you looked in PTX 1281 -- I believe

 3 | it was 1281 -- at Firm S's take rates, how does, again,

 4 | Firm S act as a competitive constraint, based on your

 5 | opinion, against Google Ads?

 6 | A   Well, based on all the evidence I've seen, it's not

 7 | significant enough to constrain Google Ads's exercise of

 8 | substantial market power.

 9 | Q   And other than their relative size, can you describe

10 | whether there are other characteristics of Firm S -- and we

11 | should be careful about saying specific characteristics.

12 | But are there other characteristics of Firm S that

13 | distinguish it from Google Ads?

14 | A   So I think this came up a little bit before, but Firm S

15 | specializes on a subset of impression types, and Google Ads

16 | transact those, as well as a broader set of impressions as

17 | well.

18 | Q   And do you know whether there are pricing differences

19 | between that subset of ads and the broader array of ads that

20 | AdX transacts?

21 | A   Yes.

22 | Q   And can you describe the pricing differences?

23 | A   For example, when Google Ads bids on this set of

24 | impressions through other exchanges, it's a much higher take

25 | rate.

Redirect Examination - R. Lee

1   Q   Okay.   Now, there was some discussion about sharing

2   customers.   Do you remember that?

3   A   Yes.

4   Q   As an economist, do you believe that Google owns its

5   customers?

6   A   No.

7   Q   Why not?

8   A   Well, the language is not something that I would use.

9   Customers oftentimes choose the products that they wish to

10 consume, those that best serve their needs.

11 Q   And from an economic perspective, you talked about

12 conditioning access to one product based on the use of

13 another product; is that right?

14 A   That's right.

15 Q   And is that, in general terms, how economists think of

16 what we lawyers might call a tie?

17 A   It's one way of describing an economics tie.

18 Q   Okay.   So from an economic perspective, not from a

19 legal perspective, what is wrong with conditioning access in

20 the way we just discussed, if anything?

21 A   Well, as a matter of economics, conditioning access,

22 tying access can be anticompetitive.   It can harm the

23 ability of competitors to compete for business impairing

24 their ability to attract customers, thereby enhancing market

25 power.

Redirect Examination - R. Lee

1   Q   And is economics at all concerned with customers'

2   ability to have freedom of choice?

3   A   Well, I think customers choosing the product that best

4   fits their need is a feature of competition, which generally

5   leads to better products and welfare.

6   Q   Now, I want to ask you about the pricing of ads and

7   take rates in terms of harm to publishers and advertisers,

8   and I just want to make sure I understand how take rates

9   work.

10   When an advertiser pays a dollar for an ad

11   impression, how much of that dollar -- if the transaction --

12   let's just talk about AdX -- goes through Google Ads makes

13   its way to the publisher?

14   A   Sorry. Can you repeat your question?

15   Q   Sure.

16   AdX's take rate is 20 percent, right?

17   A   Yes.

18   Q   Roughly?

19   A   (Nods head up and down.)

20   Q   And for every dollar the advertiser pays, how much

21   money makes it to the publisher if all -- if the only fee

22   we're looking at is AdX?

23   A   If only AdX, it would 80 cents, a dollar minus

24   20 percent.

25   Q   Okay. And assume a hypothetical world where AdX's take

Recross-Examination - R. Lee

1   rate was 10 percent, not 20 percent. The advertiser pays

2   the same dollar. How much goes to the publisher?

3   A   In that example, it would be 90 cents.

4   Q   And how, if at all, does that difference between

5   80 percent going to the publisher and 90 percent going to

6   the publisher impact the buying power of advertisers?

7   A   It means a dollar that's spent by the advertiser, less

8   of it goes to the publisher. So if it then competes against

9   another bid, it's less competitive.

10 Q   And how, if at all, does that take rate impact what

11 ultimately is received by publishers?

12 A   It reduces.

13 Q   And how does that harm publishers and advertisers?

14 A   Again, it harms publishers through a reduced payout.

15 And in the example you gave, an advertiser using that tool

16 with a higher take rate has a less competitive bid in a

17 subsequent auction.

18   MS. WOOD: I'll pass the witness.

19   THE COURT: All right.

20   RECROSS-EXAMINATION

21 BY MR. ISAACSON

22 Q   The PTX 580, the Facebook document you were shown that

23 talked about --

24 A   The barriers to entry?

25 Q   -- about their decision at this moment in time, that

41

Recross-Examination - R. Lee

1   was from February 2018, right?

2   A   That was.

3   Q   And then with respect to publisher ad server fees, with

4   respect to the DoubleClick for Publisher fees, you have said

5   before they've remained relatively constant?

6   A   You saw that figure. There was variation. But just

7   sort of generally, they remained a little bit above 2 cents

8   per thousand.

9   Q   And you do not know whether those fees have -- whether

10   those -- you didn't look at those fees on a quality-adjusted

11   basis, right?

12   A   As we discussed before, my fee analysis was nominal,

13   not doing a quality --

14   MR. ISAACSON: No further questions, Your Honor.

15   THE COURT: That was a superb recross. The only

16   better was we had one where there was nothing.

17   Ms. Dunn, I think you won that one.

18   MS. DUNN: Thank you, Your Honor.

19   THE COURT: All right. Thank you, Professor. You

20   may step down.

21   THE WITNESS: Thank you, Your Honor.

22   MS. WOOD: And, Your Honor, we will reserve the

23   right to call Professor Lee in rebuttal, if necessary.

24   THE COURT: Yes.

25   Professor, you've heard me say this before. Don't

42

1   discuss your testimony with any witness who has not yet

2   testified.

3   THE WITNESS: Yes.

4   THE COURT: Thank you.

5   MR. TEITELBAUM: Your Honor, if it's all right, I

6   think I'm going to take a second try at getting those four

7   exhibits that we discussed yesterday in. I have conferred

8   with Ms. Dunn. There is, in fact, no dispute between the

9   parties.

10   THE COURT: Excellent. So what are they now?

11   MR. TEITELBAUM: PTX 1092, PTX 1093, PTX 1096, and

12 PTX 1099. These have been narrowed based on the agreement

13 of the parties. So we will provide a replacement electronic

14 version to the Court, and I have a replacement hard copy

15 version, hole-punched, for now.

16   THE COURT: That's fine. So just hand that up.

17 Okay.

18   Now, Ms. Wood, are you saying the magic words?

19   MS. WOOD: We are going to say the magic words.

20 The plaintiffs rest, Your Honor.

21   THE COURT: All right. Very good.

22   All right. Ms. Dunn.

23   MS. DUNN: Thank you, Your Honor. Google calls

24 Scott Sheffer.

25   THE COURT: All right. Mr. Sheffer.

43

Direct Examination - S. Sheffer

1   You probably need some books, right?

2   MS. DUNN: Yes, Your Honor.

3   And I'd like to acknowledge my colleagues Jessica

4   Phillips and Anita Liu, who will be joining us at counsel

5   table.

6   THE COURT: All right. Ms. Dunn.

7   MS. DUNN: Thank you, Your Honor.

8   SCOTT SHEFFER, DEFENDANT'S WITNESS, SWORN

9   DIRECT EXAMINATION

10   BY MS. DUNN

11   Q   Good afternoon, Mr. Sheffer. Please introduce yourself

12   to the Court and spell your name for the court reporter.

13   A   I'm Scott Sheffer. My last name is spelled

14   S-H-E-F-F-E-R.

15   THE COURT: Mr. Sheffer, I can already tell your

16   voice is kind of soft, and you're tall. So I think we're

17   going to give you the lapel mic; otherwise, you have to lean

18   over and speak in the mic. So just hold that up.

19   THE WITNESS: Is that better?

20   THE COURT: Much better.

21   MS. DUNN: Yeah, much better.

22   BY MS. DUNN

23   Q   Mr. Sheffer, where do you work?

24   A   At Google.

25   Q   And what is your current role at Google?

                                                         44

Direct Examination - S. Sheffer

 1   A   I am the vice president for global partnerships

 2   sell-side monetization.

 3   Q   And I'm just guessing here, but if you could move the

 4   microphone up on your lapel or closer --

 5   A   Better?

 6   Q   Keep talking.

 7   A   Testing. Testing. Yes?

 8   Q   That okay. Great.

 9   What is your current role at Google?

10   A   I lead our sell-side monetization team.

11   Q   And what is the sell-side monetization team at Google?

12   A   That's the team that works with our publisher,

13   developer, and other partners to implement and utilize our

14   sell-side monetization tools, ad tech, ad serving, and

15   monetization tools.

16   Q   Okay. And please describe to the Court who you're

17   working with as part of your group broadly.

18   A   Sure. We work with publishers, developers,

19   broadcasters of all sizes around the world, from folks who

20   do weekend blogging all the way through large app

21   developers, large brand-name publishers, those sorts of

22   companies.

23   Q   Okay. And how long have you worked at Google?

24   A   A little over 18 years.

25   Q   And over the 18 years that you've spent at Google, have

Direct Examination - S. Sheffer

1   you always worked with publishers or digital content

2   creators?

3   A   Yes. I have primarily focused on the sell-side of

4   business with publishers.

5   Q   Okay. And although you just said that you work on the

6   sell-side primarily, are you also familiar with Google's

7   buy-side tools?

8   A   I am, yes.

9   Q   And all right. And just -- we'll do a little bit of

10 background. Where did you go to college?

11 A   I got my bachelor's and master's at Penn State

12 University and my PhD at Princeton.

13 Q   And what did you study?

14 A   Aerospace engineering was my field.

15 Q   And when you were pursuing your focus -- your PhD in

16 aerospace engineering, what was your focus?

17 A   My research thesis was on using supercomputers to

18 simulate high-speed combusting supersonic flows in things

19 like jet engines.

20 Q   All right. And --

21   THE COURT: Don't ask anything more along those

22 lines.

23   MS. DUNN: That's okay. I'm out of my depth, Your

24 Honor, with that.

25

46

Direct Examination - S. Sheffer

1   BY MS. DUNN

2   Q   And what was your first position at Google?

3   A   I was a manager in the AdSense online sales and

4   operations team.

5   Q   And at some point over your 18 years at Google, did

6   your role change?

7   A   It did. So I started leading more teams. I ended up

8   leading our global AdSense online sales team in 2010. Then

9   I was promoted to vice president in 2013. And over the last

10   several years, I've taken on responsibility for all of our

11   publisher-facing partner management teams.

12   Q   Okay. All right. Mr. Sheffer, you have worked on a

13   demonstrative as a way of communicating about the ad tech

14   ecosystem; is that correct?

15   A   Yes.

16   Q   And we are going to, with the Court's permission, put

17   up the demonstrative on the screen, and we're going to build

18   the plane as we are flying it, to quote an earlier sentence

19   in this trial.

20   All right. Mr. Sheffer --

21   MS. DUNN: If we could, put up the words "ad tech

22   ecosystem" just at the top to orient.

23   BY MS. DUNN

24   Q   -- what is the purpose of the ad tech ecosystem?

25   A   So that ecosystem exists to connect advertisers or ad

47

Direct Examination - S. Sheffer

1   buyers with publishers who are ad sellers in order to

2   connect messaging and advertisements with users.

3   Q   Okay. And it's important that, as we build the

4   demonstrative, that it be done at your direction. So I'll

5   ask you to help direct Mr. Spalding about what to put on the

6   screen.

7   A   Right. So on the right-hand side of the screen, we

8   should put a little block that says "ad buyers," and on the

9   left-hand side of the screen, we should put a little block

10   that says "ad sellers." Then we can draw connection between

11   ad sellers and ad buyers because, at least initially way

12   back when, ad buyers connected directly with the ad sellers

13   in order to place ads.

14   Q   And the Court has heard a little bit about direct

15   deals. Is what you're describing direct deals?

16   A   That is correct, yes.

17   Q   And do direct deals still happen today?

18   A   Absolutely.

19   Q   All right. Moving to the tools in ad tech ecosystem,

20   what was the first tool available in Google's ad tech

21   ecosystem?

22   A   That would have been Google AdWords.

23   Q   And where does AdWords go?

24   A   We can put that on the upper right-hand section.

25   Yep, that looks great. Sure.

Direct Examination - S. Sheffer

1   Q   Okay. And please explain: What was AdWords?

2   A   AdWords was a tool that advertisers could use to place

3   ads on Google's search results page.

4   Q   And do you have -- I don't know -- like a bubble for --

5   A   Sure. We should put a bubble on the left-hand side,

6   which would be Google's owned-and-operated search results

7   page, and then we should draw a connection between AdWords

8   and search owned and operated.

9   Q   Okay. And when did Google launch AdWords?

10   A   2000.

11   Q   All right. And at that time, did Google vet the

12   advertisers who used Google Ads to place advertisements on

13   Google's owned-and-operated properties?

14   A   Yes.

15   Q   Okay. And did Google also develop at this point any

16   sell-side tools?

17   A   The sell-side tool that came very soon after was called

18   AdSense for Search.

19   Q   Okay. Where does that go?

20   A   We shall put that sort of to the left under search

21   owned and operated.

22   Yeah, that looks great.

23   Q   Okay. And what was AdSense for Search?

24   A   So AdSense for Search was a product that allowed

25   advertisers to place their ads on search results pages on

49

Direct Examination - S. Sheffer

1   third-party publishers.

2   Q   Okay. And what did it connect to?

3   A   So it connected AdWords to AdSense for Search. So

4   these were all third-party partners that had search engine

5   result pages.

6   Q   Okay. And I know that in this demonstrative we're

7   going to draw at your direction various connections. What

8   are the connections meant to convey?

9   A   So these connections convey three things, primarily,

10   that are flowing. It would be data or signals, money, and

11   then advertisements or messages.

12   Q   Okay. What came next?

13   A   The next product that we should put up here is AdSense

14   for Content. And we can put that on the left-hand side,

15   probably just below AdSense for Search.

16   Q   And what was AdSense for Content?

17   A   AdSense for Content was another product that enabled

18   advertisers to place ads on publisher websites against

19   content on those pages, so a typical page of website

20   content.

21   Q   Okay. And when you say "place ads against," what do

22   you mean by that?

23   A   Oh, that means that the ads would actually show up

24   within the website on the page that the user was looking at.

25   Q   And what did AdSense for Content connect to?

50

Direct Examination - S. Sheffer

1 A   AdSense for Content connected back to AdWords/Google

2 Ads.

3 Q   And to anything else?

4 A   At that point, that was it.

5 Q   Okay.

6 A   I'm sorry. We should connect AdSense for Content and

7 AdSense for Search to ad sellers because they were using

8 those products.

9 Q   Okay. And does AdWords and Google Ads connect, then,

10 to ad buyers?

11 A   That is correct, yes.

12 Q   Okay. When was AdSense for Content developed?

13 A   It was 2003.

14 Q   And why in 2003 did Google decide to develop AdSense

15 for Content?

16 A   A couple of reasons:

17   One, the web was starting to grow quite quickly.

18 Websites were proliferating. A lot of content was coming

19 online. So it was a great opportunity for advertisers to

20 reach those users on those content websites. However, the

21 other nice benefit here is that money flows to publishers,

22 which enables them to create more content, thus growing the

23 web. And it had also the benefit for Google that the search

24 engine became more and more useful to navigate across all

25 that content on the web. So it was a nice reinforcing

51

Direct Examination - S. Sheffer

1   circle.

2   Q   You mentioned earlier that Google vetted the

3   advertisers who used AdWords. Did Google also vet the

4   publishers who used AdSense for Content?

5   A   Yes, we did.

6   Q   And why did you do that?

7   A   For two main reasons:

8   One is that we wanted advertisers to feel

9   comfortable with the content of the sites they were placing

10   ads against where their ads would show up.

11   Then, secondly, we wanted the publishers who were

12   joining AdSense for Content to feel like they were joining a

13   high-quality network.

14   Q   Okay. And the Court has heard testimony in this case

15   about ad networks.

16   A   Yep.

17   Q   When did ad networks come on the scene?

18   A   This was right about the same time. There are lots of

19   other ad networks that were in the ecosystem. So we can

20   put, like, a little block there for competitive ad networks

21   perhaps underneath AdSense for Content.

22   Q   And what was -- did Google have an ad network?

23   A   Our ad network was AdSense Research.

24   THE COURT: I'm sorry. What?

25   THE WITNESS: AdSense -- oh, sorry. AdSense for

52

Direct Examination - S. Sheffer

1   Content. My apologies. We also called it the Google

2   Display Network.

3   BY MS. DUNN

4   Q   Is that sometimes call GDN or GCN?

5   A   Correct, yes.

6   Q   All right. And I see that we had -- Mr. Spalding has

7   put up the GDN bubble and the competitor ad networks bubble.

8   A   Yes.

9   Q   So if there are any other connections that need to be

10   drawn, will you please direct Mr. Spalding.

11   A   Certainly. So I would connect ad buyers with

12   competitive ad networks because they bought on those

13   networks, and those networks then connected also to ad

14   sellers.

15   Q   Okay. And you mentioned competitor ad networks. First

16   of all, what did they do?

17   A   They did a very similar concept to what AdSense for

18   Content did. They aggregated publisher ad inventory. They

19   went out to publishers and said, "Please give us your ad

20   inventory." And they connected that with advertisers who

21   wanted to place ads against those publisher websites as well

22   with some sort of targeting technology that made the

23   connection between those ads and those users.

24   Q   How many competitor ad networks were there?

25   A   There were probably dozens at the time.

Direct Examination - S. Sheffer

1   Q   Okay. And are there still competitor ad networks in

2   the world?

3   A   Certainly, yes.

4   Q   Okay. And have you ever heard the phrase "advertiser

5   ad networks"?

6   A   Not really, no.

7   Q   Okay, and I neglected to ask you. Are there -- you

8   said there were still competitor ad networks today?

9   A   Yes.

10   Q   Do you know how many off the top of your head?

11   A   There's probably dozens out there for sure. Yes.

12   There's multiple ones across all the types of inventory that

13   exist today.

14   Q   Okay. All right. So what is -- after this, what

15   happened? What was the next step in the evolution of the ad

16   tech ecosystem?

17   A   So the next two tools that Google had were DFP and the

18   ad exchange. We should place DFP sort of underneath AdSense

19   for Content and the ad exchange right next to DFP.

20   Q   Okay. And before we do the connections, just to be

21   clear, how did DFP and AdX come to be?

22   A   They were products that were purchased as part of

23   DoubleClick acquisition, and then they were rebuilt and

24   enhanced on the Google technical infrastructure.

25   Q   Okay. And, Mr. Sheffer, if you could, direct

54

Direct Examination - S. Sheffer

1   Mr. Spalding what connections need to be made.

2   A   Absolutely. This one is probably going to get a little

3   complicated. So let's start with DFP connecting to ad

4   sellers because that was the primary ad server that --

5   sorry, the ad server is what ad sellers use. And then DFP

6   connects to AdX. It also connected to competitor ad

7   networks. It also connected to AdSense for Content. And

8   then DFP also connects directly to ad buyers in order to

9   facilitate the direct deals that we mentioned earlier.

10 Q   Okay. And are there also competitor ad servers?

11 A   There are, yes.

12 Q   Okay. And where would those go here?

13 A   I would just put a block underneath DFP for competitive

14 ad server.

15   That sound great, yes.

16 Q   Okay. And can you direct Mr. Spalding to what, if any,

17 connections need to be made to competitor ad servers.

18 A   Sure. So, similarly, competitor ad servers would

19 connect to ad sellers. They could also connect to AdSense

20 for Content. They connect to competitor ad networks, and

21 they also connect to ad buyers for their direct sales

22 efforts.

23 Q   And we'll try to just slow down a little and let

24 Mr. Spalding catch up with you.

25 A   Sure.

Direct Examination - S. Sheffer

1 Q   So while we're here -- so we talked about competitor ad

2 servers. What about competitor ad exchanges?

3 A   There were competitor ad exchanges as well. So we

4 should put a block there somewhere, maybe below the ad

5 exchange.

6   Here, again, competitor exchanges would connect to

7 competitor ad servers. They would also connect to DFP. And

8 the competitor ad exchanges would also connect to ad buyers.

9 Q   Okay. And the Court has already heard testimony about

10 the acquisition of DFP and AdX. So I'm not going to go into

11 that in great detail. And you testified a moment ago that

12 they were rebuilt and enhanced on the Google technology

13 platform.

14 A   Correct.

15 Q   When did Google roll out AdX after it was rebuilt on

16 Google's stack?

17 A   Yeah, that was in 2009.

18 Q   Okay. And if you know, what revenue share did

19 DoubleClick charge for its ad exchange before it was

20 acquired by Google?

21 A   It was an 80/20 rev share before the acquisition.

22 Q   Okay. And when you say 80/20 --

23 A   Oh, sorry. Yes. So 80 percent of the revenue goes to

24 the publisher, and 20 percent of the revenue is kept by

25 Google.

56

Direct Examination - S. Sheffer

1   Q   Okay. And also, if you know, after the acquisition and

2   after Google had rebuilt and enhanced the ad exchange, what

3   take rate did Google apply?

4   A   It was the same 80/20 rev share. So 80 percent to the

5   publisher and 20 percent to Google.

6   Q   Okay. And to what extent, if at all, did Google take

7   into consideration DoubleClick's 20 percent rev share for

8   AdX?

9   A   It was a market rate that we thought was appropriate,

10   so we adopted it.

11   Q   Okay. And then over the years, at any time where

12   Google gained customers on the buy-side, if you know, did

13   Google decide to raise the 20 percent take rate for AdX?

14   A   Not that I'm aware of.

15   Q   Okay. To what extent are publishers who use DFP part

16   of GDN?

17   A   So publishers who are on DFP, if they are utilizing the

18   ad exchange functionality or AdSense for Content, their

19   inventory would be considered part of the Google Display

20   Network.

21   Q   All right. And we had just talked about --

22   A   Oh, sorry. We're missing some connections as well that

23   I didn't notice here. So we should have connections from

24   AdWords Google Ads to AdX, from ad buyers to AdX, and

25   competitive networks also bid on AdX as well.

57

Direct Examination - S. Sheffer

1   Q   Okay. And how did advertisers bid into competitor

2   exchanges?

3   A   Primarily, they used tools which became known as DSPs.

4   Q   Okay.

5   A   So we can put a block on the right-hand side, perhaps

6   in that space under AdWords Google Ads. Right. Maybe we

7   can move it up a little bit to avoid some of the spaghetti

8   that we're creating here.

9   Okay. That looks great, yeah.

10   Similarly, for this competitor DSPs would connect

11   to ad buyers because they primarily use those to place

12   advertisements across a bunch of different areas. So we

13   need to connect competitor DSPs to competitor ad networks

14   and competitor DSPs to ad exchange and competitor DSPs to

15   competitor exchanges. And there are also some instances

16   where competitor DSPs connect directly into ad servers, such

17   as DFP and competitor ad servers.

18   Q   Okay. I'm just trying to keep up. All right. And

19   does Google have its own DSP?

20   A   It does. It's now called DV360.

21   Q   Okay. And what exchanges does DV3 or DV360 bid into?

22   A   It bids into the ad exchange, as well as multiple

23   different competitive exchanges, probably on the order of 80

24   plus, I think at this point.

25   So we should probably put a block up here for

Direct Examination - S. Sheffer

 1 DV360 sort of below -- yeah, below the competitor ad

 2 exchange.

 3   And we need to make the same connections for

 4 DV360. So DV360 connects to ad buyers. DV360 also connects

 5 to competitor ad networks. It connects to AdX. It connects

 6 to competitor exchanges, and it also can be used to connect

 7 directly to DFP and to competitor ad servers again.

 8 Q   Okay. All right. Now, internally at Google, the Court

 9 already knows -- you refer to the buy-side and the

10 sell-side. So my question, Mr. Sheffer, is on the

11 sell-side, were there any other sell-side tools for

12 publishers?

13 A   Yes. So we should add AdMob to this chart as well. We

14 can put that perhaps below -- yeah, perfect. It looks right

15 there -- and then we need to do a bunch of connections as

16 well for AdMob.

17 Q   Okay. But first, what's AdMob?

18 A   So yes, AdMob is a dual-use product. It provides

19 advertisements for app inventory specifically. That's the

20 primary sort of as an ad network.

21   And the secondary property of AdMob is it provides

22 a mediation platform, which is sort of a simplified ad

23 server that some app developers choose to use.

24 Q   Okay. And is AdMob the only Google tool that is used

25 for apps?

Direct Examination - S. Sheffer

1   A   No, it is not.

2   Q   Okay. Can you explain that?

3   A   Sure. So AdMob specifically serves app developers

4   in-app inventory, but AdX and DFP are also utilized by app

5   developers for their app inventory.

6   Q   Now, the Court has also already heard that at some

7   point there came to be something called GAM or Google Ad

8   Manager. Can you speak a little bit about that?

9   A   Sure. Google Ad Manager was the combining of DFP and

10 AdX together into a single streamline product. We had a lot

11 of feedback from our customers that having a single

12 interface to manage your direct sales, all of your indirect

13 efforts, as well as having the indirect demand coming from

14 AdX would be useful in a single tool, a single interface for

15 their teams.

16 Q   Okay. And where does GAM go on the demonstrative?

17 A   Sure. It goes over DFP and AdX because it sort of

18 combines that functionality together.

19 Q   Okay. We've also heard a bit in this case about header

20 bidding.

21 A   Yes.

22 Q   Where does header bidding belong in this constellation?

23 A   Yeah. So header bidding initially emerged as a direct

24 code placement on a publisher website. So to start, we

25 could put a little header bidding indicator over by ad

Direct Examination - S. Sheffer

1   sellers, if we can do that.

2   And then so header bidding would connect to ad

3   sellers. But, you know, very quickly header bidding then

4   became placed within ad servers, such as GAM and the

5   competitor ad servers.

6   And we need to connect header bidding to

7   competitor ad networks, as well as ad buyers because demand

8   flowed in through those into header bidding.

9   Q   Okay. Fantastic.

10   What is AdX Direct and where, if anywhere, does it

11 belong here?

12 A   So AdX Direct is a product that enables direct

13 integration of AdX demand into a publisher's ad serving

14 infrastructure. So we should add an AdX Direct tag perhaps

15 on the upper left, and we would then want to connect AdWords

16 and Google maybe a little bit to the right. Then we want to

17 connect AdWords and Google Ads to AdX Direct, and then we

18 should connect AdX Direct to ad sellers because that's where

19 the demand then flowed.

20 Q   Okay. And in listening to you, you're saying perhaps

21 we should put this there and a little bit to the right.

22   So can you just explain -- you've been doing this

23 for 18 years -- how you look at this? Is this, like,

24 everything belongs in a precise place? Is it more fluid?

25 How do you look at it?

Direct Examination - S. Sheffer

1   MR. TEITELBAUM: Your Honor, since it is a Google

2   witness, I would ask for a little bit less of a preamble.

3   This is bordering on leading.

4   THE COURT: Well, I don't think we need the

5   preambles, Ms. Dunn. So I'll sustain that objection. All

6   right.

7   MS. DUNN: That's fair, Your Honor.

8   BY MS. DUNN

9   Q   Mr. Sheffer, why do you say perhaps move it a little

10   bit over there?

11   A   Because this industry has been exceptionally fluid over

12   the last 18 years. A lot of the companies that are

13   operating across this entire ecosystem have changed and

14   morphed their offerings and have shown up in multiple

15   different places across this ecosystem. So this is a

16   snapshot. It's a representative snapshot of an industry

17   that has evolved a lot in the last 18 years.

18   Q   All right. What -- we've heard also about -- oh, I'm

19   handed a note that we failed to do AdMob connections. What

20   does AdMob connect to?

21   A   Correct. AdMob would then connect to Google AdWords

22   demand. We also have demand from computer competitor DSP's

23   flowing into AdMob. Then AdMob connects to ad sellers. And

24   I think that DV360 also can buy into AdMob just like other

25   DSPs do.

                                                             62

Direct Examination - S. Sheffer

1   Q   Okay. All right. What is AWBid and where does it fit?

2   A   So AWBid is a way for Google AdWords' buyers to buy

3   remarketing inventory on inventory that was not within

4   AdSense or Google Ad Manager AdX. So we should draw a line

5   from AdWords Google Ads to competitor ad networks,

6   competitor exchange, as well as competitor ad servers.

7   Q   And after Mr. Spalding does that, Mr. Sheffer, please

8   let us know if we're missing any connections on the

9   demonstrative.

10 A   Sure.

11   I think we're in -- the only thing I would -- so

12 one thing I would add is that AdMob is also utilized within

13 other mediation platforms by other app developers. So a

14 mediation platform is similar to a competitive ad server.

15 So we could connect AdMob to competitive ad servers there.

16 I think those are the major connections.

17 Q   Okay. And with respect to AWBid, you mentioned

18 remarketing. Today does AWBid do -- what, if anything, does

19 AWBid do beyond remarketing?

20 A   I believe it's still fairly focused on remarketing.

21 Q   All right. Now --

22   THE COURT: Just for the record, I think you

23 should be able to print out a copy of this, and you want to

24 put a number on it, a label.

25   MS. DUNN: We do, Your Honor.

Direct Examination - S. Sheffer

 1   MR. TEITELBAUM: And, Your Honor, just for the

 2   record, I would also like to be able to address the

 3   electronic version on cross-examination. So I just want to

 4   make sure it's not going away.

 5   THE COURT: All right. So we don't want it erased

 6   but for purposes, again, for the public and transparency.

 7   MS. DUNN: Absolutely. We will save it, and we

 8   should mark it as the next exhibit.

 9   THE COURT: Like Sheffer Demo 1 or do you want to

10   give it --

11   MS. DUNN: We would like for it to have a DTX

12   number.

13   MR. TEITELBAUM: It's not been disclosed on the

14   exhibit list, Your Honor.

15   THE COURT: So it would have to be a demo. It

16   would have to be a demo.

17   MS. DUNN: Okay. Sheffer Demo 1.

18   THE COURT: All right. Thank you.

19   MS. DUNN: First of all, thank you to

20   Mr. Spalding.

21   BY MS. DUNN

22   Q   Mr. Sheffer, I'm just going to ask you a few questions

23   about the ad tech ecosystem.

24   MS. DUNN: And, actually, if we could keep it up,

25   please.

Direct Examination - S. Sheffer

1   BY MS. DUNN

2   Q   If you were to identify on the screen the tools that

3   transact only on websites, which ones would you identify?

4   A   From a Google tool perspective, AdSense for Content is

5   specifically for HTML-coded websites. And AdSense for

6   Search is almost 100 percent utilized on HTML websites,

7   effectively.

8   Q   Anything else?

9   A   I think that's mostly it. I mean, header bidding is

10   also something that's dominantly web-focused, yeah.

11   Q   And to what extent are the rest of these tools

12   multifunctional?

13   A   They're definitely multifunctional. So GAM, for

14   example, handles all sorts of ad formats. So text, display

15   video, audio, digital out-of-home, like, every sort of ad

16   format you can possibly imagine across all sorts of

17   different modalities, whether it's an HTML website or an app

18   environment or instream/outstream video, again, digital

19   out-of-home environment and beyond, connected TV handles,

20   all of that.

21   And there's other competitive ad servers and

22   competitor exchanges. The competitor DSPs, DBM, DV360, all

23   of these things buy into all that different type of

24   inventory as well.

25   Q   Okay. And you mentioned display in the list you just

Direct Examination - S. Sheffer

1 gave. In your 18 years in the industry, have you ever heard

2 use of the term "open-web display advertising"?

3 A   No.

4 Q   And what would you -- what would be your response if

5 someone said to you that open-web display advertising refers

6 to a standardized series of ad sizes that web publishers

7 rely upon?

8   MR. TEITELBAUM: Objection to the form of the

9 question, hypothetical, compound --

10   THE COURT: His impression doesn't mean anything.

11 So I'll sustain the objection.

12 BY MS. DUNN

13 Q   Mr. Sheffer, to what extent are ads delivered in

14 certain formats and standardized ad sizes?

15 A   So publishers/developers have a significant amount of

16 flexibility to determine the ad sizes, the ad formats on

17 whatever inventory they actually have. There are some

18 industry-standard formats that make it easier for the

19 industry to place ads in those specific types of formats.

20   But there's certainly a significant amount of

21 native ads or expandable ads, customized ads that publishers

22 and developers put into their particular inventory. So it's

23 a pretty wide variety of ads available.

24 Q   And does that include -- you said native ads. Does

25 that include video ads also?

Direct Examination - S. Sheffer

1   A   Yes.

2   Q   Okay. Now, looking at the screen, to what extent is

3   everything, if at all -- is everything you see here

4   software?

5   A   These are all pieces of software that have been created

6   that can make all these connections, yes.

7   Q   And for each of the lines representing the connections,

8   to what extent was there technical work put into that?

9   A   A significant amount of technical work has to be done

10   to make all of these connections. Some of those connections

11   were obviously made by proprietary bodies. So like the

12   Google AdWords to a search engine is a proprietary

13   connection, but many of these other connections are

14   industry-standard connections that have been developed and

15   adopted by the entire ecosystem.

16   MS. DUNN: Okay. We can take that down. Thank

17   you, Mr. Spalding.

18   BY MS. DUNN

19   Q   Mr. Sheffer, you talked just a little bit about ad

20   servers. Are you aware of any examples of a publisher using

21   more than one ad server?

22   A   I am, yes.

23   Q   And can you please explain to the Court just a couple

24   of examples, if you have them.

25   A   Certainly. So one major example of this would be Axel

67

Direct Examination - S. Sheffer

1   Springer, which is a very large international publisher

2   primarily in Germany, but they also have properties here in

3   the United States, such as Business Insider and Politico.

4   Politico, for example, is moving off of just GAM

5   as an ad server and is adopting Microsoft Monetize as their

6   primary ad server and going to be -- use GAM as their

7   secondary ad server. So that's one example.

8   Q   Okay. Any other examples?

9   A   Sure. Yeah. So there's the Internet Move Database,

10   otherwise known as IMDb, which is used to be an independent

11   website and app. It is now owned by Amazon. For a number

12   of years now, they had been running on Amazon's proprietary

13   internal ad server, but they've recently made the decision

14   to implement -- and they've implemented now on their web

15   properties and expanding to app -- Google Ad Manager. So

16   they're using their Amazon proprietary ad server as their

17   primary, and they're using Google Ad Manager as their

18   secondary.

19   Q   Okay. And have you ever seen to any extent one company

20   which has different subsidiaries use different ad servers?

21   A   For sure, yeah. So there's several examples of this.

22   One is the U.S. division of Fox. So Fox News, for example,

23   utilizes Google Ad Manager for their properties. Fox Sports

24   uses FreeWheel for their video properties. And then Tubi

25   uses their own proprietary ad server, which is known as

68

Direct Examination - S. Sheffer

1   AdRise for their ad server. So that's three different

2   subsidiaries using three different ad servers.

3   Q   All right. Mr. Sheffer, I'd like to show you what's

4   been marked as DTX 1511. You should have a binder up there.

5   And also, we can show it to you on the screen.

6   THE COURT: Any objection to 1511?

7   MR. TEITELBAUM: Your Honor, I think just the same

8   objection about out-of-court statements from Google. We

9   just don't believe it's relevant. The fact that Mr. Sheffer

10   is here to be cross-examined about it doesn't change the

11   fact that it's hearsay.

12   THE COURT: All right. Well, I'm still going to

13   let it in because we've been doing that for a lot of these.

14   Go ahead.

15   MS. DUNN: Thank you, Your Honor.

16   BY MS. DUNN

17   Q   All right. Mr. Sheffer, this is an email from Catera

18   Keeler to Patrick Cines cc'd to a listserv and others that

19   includes you. Do you see that?

20   A   I do.

21   Q   And the subject line says "Amazon's IMDb-Deal Closed,"

22   exclamation point. Do you see that?

23   A   I do.

24   Q   And do you recognize this document?

25   A   I do.

Direct Examination - S. Sheffer

1   Q   If you look at, Mr. Sheffer, the last sentence in the

2   second paragraph, it says, "IMDb also leverages Amazon's

3   in-house ad server to manage its direct deals and direct

4   connection to the Amazon DSP."

5   What's that referring to?

6   A   So that refers to what I was saying is that IMDb is

7   utilizing the proprietary ad server that Amazon has with all

8   of Amazon's demand flowing through that. That's Amazon's

9   DSP. That's the demand-size platform.

10   Q   All right. And then it says, "We've fully executed a

11   deal and technical architecture which will allow Ad Manager

12   to manage all of IMDB's indirect demand sources and allow

13   AdX and OB to participate in their auction."

14   And Ad Manager is Google Ad Manager, right?

15   A   Correct.

16   Q   And OB is open bidding?

17   A   Correct.

18   Q   Okay. And what does this refer to?

19   A   So this means that IMDb has multiple different indirect

20   demand sources that are flowing into their ad serving

21   infrastructure. They will now be managed within Ad Manager

22   completely under IMDb and Amazon's control. And that means

23   what AdX demand as well open bidders will be able to bid

24   into that inventory on IMDb.

25   Q   Okay. And to what extent, if at all, are you seeing a

70

Direct Examination - S. Sheffer

 1   trend toward publishers building their own in-house ad

 2   servers?

 3   MR. TEITELBAUM: Objection as to "seeing a trend."

 4   Lacks of foundation.

 5   THE COURT: Well, more than that, it's, I think, a

 6   leading question too. But you can lay a foundation, I'm

 7   sure, with this witness.

 8   MS. DUNN: Absolutely, Your Honor.

 9   BY MS. DUNN

10   Q   Mr. Sheffer, are you in regular contact with publisher

11   customers of Google?

12   A   Yes.

13   Q   Okay. And please describe the contact that you have

14   with them.

15   A   Sure. We talk to them about business opportunities,

16   about their technical plans for the future.

17   Q   Okay. And are you personally involved in those

18   conversations?

19   A   Yes.

20   Q   Okay. And what's the volume of those kinds of

21   conversations that you and your team are involved in?

22   A   They're for some of our team members daily. For me,

23   it's probably weekly, monthly depending on the size of the

24   customer.

25   Q   All right. So, based on your experience working with

71

Direct Examination - S. Sheffer

1   the publishers and heading up a team, as you described,

2   whose job is it to do this? What is your firsthand

3   knowledge about publishers, if at all, shifting or thinking

4   about shifting to proprietary ad servers?

5   MR. TEITELBAUM: Your Honor, this is still just

6   relaying things he's hearing from publishers.

7   THE COURT: Nevertheless, I mean, given his

8   position in the company, he can certainly indicate what his

9   understanding is of the trend in the relevant industries.

10   So I'm going to overrule the objection with that

11   understanding.

12   BY MS. DUNN

13   Q   Mr. Sheffer, just explain to the Court your

14   understanding of the trend, please.

15   A   Sure. So there are many publisher partners that

16   consider on a regular basis whether to take ad serving

17   in-house and develop their own proprietary customized

18   technology. Obviously, it's a business decision for them,

19   and it's completely up to their control whether they want to

20   do that or not.

21   Q   Okay. And just to be clear, if a publisher does not

22   want to use Google's ad server, can they still access the

23   advertising demand that flows through AdX?

24   A   Yes, there are multiple ways for them to access that

25   advertising demand.

72

Direct Examination - S. Sheffer

1   Q   Okay. And can you describe what those are?

2   A   Sure. So the first one, which is probably the most

3   straightforward, is they can utilize GAM. So they would

4   call GAM within their own ad server, and they would set GAM

5   to call only AdX as a demand source. So it's basically a

6   direct integration of demand with flow right into their ad

7   server whether it's proprietary or a third-party ad server.

8   So that's one method.

9   Q   Okay.

10   A   The second method would be to utilize AdSense for

11   Content. So the demand for AdSense for Content, as we

12   talked about earlier, is Google Ads' demand, as well as

13   third-party demand. So you're getting effectively all of

14   the Google Ads' demand flowing through AdSense for Content,

15   and you can implement that directly into your

16   infrastructure, again, whether it's proprietary or a third

17   party.

18   The third method, which we had up on the chart

19   earlier, is AdX Direct, which is a product that, again,

20   enables direct integration for AdX demand into a publisher's

21   usually proprietary ad server.

22   And then there are direct technical connections

23   that we've implemented as well that take -- sorry -- Google

24   Ad demand and third-party demand directly into a publisher's

25   technical infrastructure.

73

Direct Examination - S. Sheffer

1   Q   Okay. I am not -- the last thing that you talked about

2   may be new to this trial. So can you explain what you're

3   describing?

4   A   Sure. Yes. So we have a partnership with Twitter/X.

5   Sometimes I might say Twitter; sometimes I might say X.

6   It's a little old school.

7   But the idea there is that -- this is running

8   today -- is that Google Ads' demand, as well as third-party

9   buyers can buy directly into Twitter inventory --

10   THE COURT: I'm sorry. Is there an objection?

11   MR. TEITELBAUM: Yes, Your Honor. I'm going to

12   object to the extent that information about any sort of

13   current partnership that hasn't been produced in discovery

14   and is being discussed from after the discovery cutoff.

15   THE COURT: I didn't get involved in your

16   discovery. So if this was not previously presented in

17   discovery and it was within the scope of a discovery

18   request, then it would not be proper to bring it out now.

19   MS. DUNN: Well, Your Honor --

20   THE COURT: Do you want to talk for a second to

21   see whether there's a dispute there?

22   MR. TEITELBAUM: And I readily admit I don't have

23   all 12 million documents at my ready disposal. It's just I

24   don't have any awareness of this.

25   THE COURT: Was Mr. Sheffer deposed during

Direct Examination - S. Sheffer

1   discovery?

2   MR. TEITELBAUM: During the investigation. He was

3   not during the litigation.

4   THE COURT: All right. Well, during the

5   investigation, he said he was deposed.

6   MR. TEITELBAUM: That's correct, Your Honor.

7   THE COURT: All right. Did this issue come up?

8   MR. TEITELBAUM: Not at his deposition.

9   THE COURT: All right.

10   MS. DUNN: So, Your Honor, first of all,

11 plaintiffs' counsel has elicited from witnesses testimony

12 about what's happening today. And obviously, one of the

13 things they're seeking in this case is an injunction.

14   So they have --

15   THE COURT: I'm sorry. But if what they requested

16 was presented to them during discovery, that's fair game.

17 So, again, there was no objection raised when those

18 questions were being asked. But now I have an objection

19 that this line of information was not presented during

20 discovery.

21   MS. DUNN: Here is what, I think, might solve the

22 problem and alleviate the issue. I think we -- Mr. Sheffer

23 was deposed during the investigative stage, and I'm not

24 seeking to introduce a document. And I think maybe we -- if

25 I would be permitted to ask him when they were -- this deal

Direct Examination - S. Sheffer

1   came to be, when they were discussing it. If it was within

2   the discovery period and he was not asked about, maybe that

3   would solve the issue.

4   MR. TEITELBAUM: Your Honor, in the interest of

5   time, one solution I could propose is this testimony could

6   go forward subject to our continuing objection. We can meet

7   and confer at the end of the court day. And if it turns out

8   that we have not been given the discovery to which we're

9   entitled on this issue, then we would then ask the Court to

10   strike this portion of testimony from the record.

11   THE COURT: All right. We can do that.

12   MS. DUNN: That seems very reasonable.

13   BY MS. DUNN

14   Q   All right. Mr. Sheffer, please describe to the Court

15   what you were talking about.

16   A   Sure. So this is a direct technical integration from

17   Google AdWords' demand, as well as other third-party

18   bidders, that goes directly into Twitter's ads

19   infrastructure. So Google Ads' advertisers and third

20   parties now have the ability to bid directly and compete for

21   ad placements within Twitter/X's fees.

22   Q   All right.

23   THE COURT: Can you give us a sense of the timing

24   when this was arranged?

25   THE WITNESS: Yeah. So the technical integration

76

Direct Examination - S. Sheffer

1   began earlier this year. And this is up and running as of

2   earlier this year and now is running at a fairly large run

3   rate for Twitter in terms of revenue.

4   MR. TEITELBAUM: Your Honor, I think we can

5   dispense with this now because of the fact the discovery

6   cutoff was September of 2023.

7   MS. DUNN: I think the issue is when did these

8   discussions begin because --

9   THE COURT: All right. Let's ask that question.

10 BY MS. DUNN

11 Q   Mr. Sheffer, when did Google begin speaking with

12 Twitter or X about this concept?

13 A   Sure. So we've been talking to Twitter for a long time

14 prior to September 2023 about the possibilities of a

15 technical integration --

16   THE COURT: I'm sorry. A long time?

17 BY MS. DUNN

18 Q   Can you define a long time?

19 A   For a number of years.

20   MR. TEITELBAUM: So I guess, for starters, we

21 would object right now to any testimony about anything that

22 occurred after the fact of the discovery cutoff, and then we

23 can have a follow-on discussion about before the fact

24 discovery cutoff.

25   THE COURT: Well, let's just leave this for now.

Direct Examination - S. Sheffer

1   Let's move on to something else.

2   MS. DUNN: Sure, Your Honor.

3   BY MS. DUNN

4   Q   Okay.   Mr. Sheffer, why, if at all, would -- based on

5   your experience, would a publisher want to use the ad server

6   functionality in GAM?

7   A   So the ad server is a mission-critical enterprise

8   software tool that publishers use primarily and, most

9   importantly, to drive their direct sales efforts. For most

10   publishers, a rough rule of thumb is that 50 to 80 percent

11   of their revenue comes from their direct sales efforts. And

12   the ad server is the way by which they deliver against all

13   of their advertiser agency commitments. So that means

14   making sure that all the ad campaigns run according to

15   schedule, that they fulfill all their contractual

16   commitments, that they target those ads correctly to the

17   types of users or the audiences that those advertiser

18   agencies want. So that's a primary component of an ad

19   server's capability.

20   There's also a secondary component, which is what

21   we typically call indirect monetization. So this is a way

22   that inventory that a publisher doesn't release to their

23   direct sales team, they can then get other ad networks or

24   other sources of demand to monetize that inventory, so

25   additional revenue for the publishers.

Direct Examination - S. Sheffer

1   Q   And, if you know, how much of publisher revenue comes

2   from direct deals?

3   A   It's roughly between 80 percent as a rule of thumb.

4   Q   I'm sorry. Say that one more time. I couldn't --

5   A   It's roughly between 50 to 80 percent as a rule of

6   thumb.

7   Q   Okay. And to what extent, if at all, do you consider

8   the ad server functionality in GAM to be a good value for

9   the price that is charged?

10   MR. TEITELBAUM: Objection as to "good value."

11   THE COURT: Sustained.

12   BY MS. DUNN

13   Q   How much does Google charge for GAM?

14   A   So GAM serving rates for publishers typically run a

15   penny or less CPM. And we also have a product that's called

16   DFP Small Business that enables publishers to utilize ad

17   serving up to 90 million impressions per month free of

18   charge.

19   Q   Okay. And you said a penny or less per --

20   A   That's a CPM. So that's a penny or less to serve a

21   thousand impressions compared to direct sales prices, which

22   are typically at least $5 or $10.

23   Q   All right. And you mentioned specific functionality

24   for small business?

25   A   Yes.

Direct Examination - S. Sheffer

1   Q   Okay. Please explain that to the Court.

2   A   Yeah. So, again, DFP for Small Business is an ad

3   server with a more limited set of functionality compared to

4   GAM and Ad Manager 360, but the primary purpose there is to

5   enable small businesses that want to utilize a direct sales

6   effort to serve those ads.

7   And, again, if they're under 90 million

8   impressions a month, all those impressions for ad serving

9   are free of charge.

10 Q   Okay. And what constitutes being a small business such

11 that you get the 90 million impressions a month for free?

12 A   It's up to the publisher to sign up for whatever

13 product they would like. So anyone can sign up for the

14 small business product. And as long as there are under

15 90 million impressions a month, that ad serving is free.

16 Q   Okay. Now, if a publisher uses the ad serving

17 functionality on GAM, can it turn off AdX?

18 A   Absolutely. It is completely within the publisher's

19 control.

20 Q   And do you personally know any examples of a publisher

21 who has chosen to do that?

22 A   I do. There are several hundred, actually. But some

23 names that we might all recognize would include Harvard

24 Business Review -- let's see. Who else? We have a

25 Nordstrom's, Walgreens, CVS. We also have the Public

80

Direct Examination - S. Sheffer

1   Broadcasting System that all use GAM for their direct sales

2   but do not call the AdX functionality.

3   Q   All right. Now, for publishers who do sell inventory

4   through AdX, to what extent is there additional demand

5   available through AdX beyond DV360 and Google Ads?

6   A   There is additional demand that is available. I have a

7   team which is called the exchange platforms team that spends

8   100 percent of their time convincing third-party demand

9   sources to spend their demand on the ad exchange.

10   So these are companies like The Trade Desk,

11 Amazon, Baidu, Yahoo, Liftoff. There's a whole list of

12 those folks. And the idea is to bring that inventory --

13   (Reporter clarification.)

14 A   I'm sorry -- bring that advertising demand to our

15 publishers.

16 Q   Okay. And just for the court reporter, you mentioned

17 Baidu.

18 A   Yes.

19 Q   Do you know how to spell that?

20 A   B-A-I-D-U.

21 Q   And what is it?

22 A   That's a very large Chinese company that runs a lot of

23 ads.

24 Q   Okay. And how many people work on the exchange

25 platform team?

Direct Examination - S. Sheffer

1   A   It's 38 -- 39 right now.

2   Q   Okay. And why -- can you just explain -- so you said

3   your team is trying to persuade these companies to offer

4   their additional demand. Can you explain more about what

5   that is like.

6   A   Certainly. So all of those companies control their

7   demand. They have active advertiser sales teams that are

8   out there trying to bring money and dollars and ads into

9   their ads' tools. They don't have to buy on the ad

10   exchange. And so what we try to do is present the publisher

11   inventory that we have available, the quality of it, the

12   reach of it, the different types of formats, modalities, and

13   convince those third parties to spend some of that

14   advertiser budget through the ad exchange benefiting our

15   publishers.

16   Q   And to what extent are these companies that you're

17   trying to encourage to bid into AdX your competitors?

18   A   I think they're all my competitors. So when I think of

19   this broad ecosystem, I think of any money -- advertising

20   money that's flowing through a Meta -- Meta is another one I

21   forgot to mention -- Meta or Amazon or Yahoo or Baidu, if

22   that money, that advertising money, is flowing into their

23   systems and going to their owned-and-operated properties,

24   that's revenue that our publishers aren't receiving.

25   So I see that as a massive amount of dollars that

82

1   we should be competing for and trying to convince those

2   folks to spend their money on ad exchange, which will flow

3   to our publishers.

4   Q   And how, if at all, does what you just describe relate

5   to the term "unique demand"?

6   A   So I think unique demand sort of depends on who you ask

7   what that term might mean. I think at a very high-level,

8   you know -- and Amazon probably considers their demand

9   unique. They certainly position it in their marketing

10   materials online. If you look at the marketing materials

11   for Amazon's ad marketplace, they talk about Amazon --

12   MR. TEITELBAUM: Objection to this summary of

13   Amazon's marketing materials, Your Honor.

14   THE COURT: I'm going to overrule the objection.

15   I don't want these kinds of objections. This needs to come

16   in in some form of comprehensible format. So let it go.

17   Overruled. All right.

18   BY MS. DUNN

19   Q   You can finish.

20   A   All right. So sorry. So Amazon has within their

21   marketing materials for the Amazon ad marketplace, which is

22   effectively an ad exchange -- they specifically say Amazon

23   demand, as well as other indirect sources, including header

24   bidding. So it seems to me, from their marketing, they're

25   positioning it as specific Amazon demand, and they're

Direct Examination - S. Sheffer

1   talking very broadly about it.

2   Q   And just to close this out, if a publisher does not

3   want to use any Google tools at all, what, if any, options

4   do they have not to use Google's tools but still monetize

5   their properties?

6   A   There are dozens, if not hundreds, of companies and

7   pieces of technology that they can use across that entire

8   ads ecosystem that we talked about.

9   Q   Okay. We talked about some of the publisher partners

10 who use Google's sell-side tools. How many publisher

11 partners does Google have overall?

12 A   It's on the order of 2 million publishing partners

13 worldwide and about 220,000 in the U.S. alone.

14 Q   Please describe for the Court how Google goes about

15 managing its relationships with so many publishers.

16 A   So we have a tiered system of support and interaction

17 with our publishers. As you might imagine, the publishers

18 that are very, very large have a lower number of accounts

19 per person that are handled. So our partner managers spend

20 more time with our larger customers. But we also have a

21 robust interaction system, both through technology but also

22 through people that work with our medium and smaller size

23 partners around the world.

24 Q   And to what extent does Google take into account the

25 feedback from its publisher partners?

Direct Examination - S. Sheffer

1   A   It's a critical part of how we operate our business and

2   how we develop all of our tools, whether it's a direct

3   one-to-one conversation with a partner, a large brand-name

4   partner that we all might recognize, or the aggregated

5   online feedback from the hundreds of thousands of smaller

6   developers and publishers that we have worldwide. All that

7   is collected, collated, looked at, and that forms the basis

8   of information that we share with our product managers and

9   engineering team about the features and the services that

10 we're developing going forward.

11 Q   I am going to, in particular, ask you about the smaller

12 publishing partners. Can you tell the Court how you go and

13 collect their feedback and making sure that it's relayed

14 internally?

15 A   Sure. So we have a dedicated team, which is called our

16 scale and insights team. That's a global team of people,

17 obviously, located in each region. They're responsible for

18 helping partners to implement, as well as troubleshoot and

19 do customer support for all those partners. They do that

20 through email tickets. They do it through help centers.

21 They do it through various forms.

22   But any comments or feedback that comes back from

23 our partners, we aggregate that, and I receive basically a

24 quarterly description and summary of all the feedback we get

25 from our small partners. We have lots of data, lots of

Direct Examination - S. Sheffer

1   numbers around that.

2   We look at that. We say, what are the things that

3   we're doing well? The things that we could be doing better?

4   The things we can do better? We talk to our product manager

5   engineering counterparts about how we can improve the

6   product.

7   So all that feedback goes right into the

8   developing process.

9   Q   Okay. All right. Mr. Sheffer, in your view, does

10   Google face competition for ad tech?

11   A   Yes, fierce competition.

12   Q   And who, in your view, are Google's biggest competitors

13   in the ad tech ecosystem that you have described?

14   A   There's a long list here. So I can start off with

15   Microsoft is a huge one, Amazon as well. We've got folks

16   like Equativ. We've got folks like Kevel and Adzerk. Then,

17   of course, like -- as I mentioned before, Meta is a huge

18   competitor in terms of just ad dollars.

19   There are folks like AppLovin, IronSource, Unity,

20   Tapjoy, Pangle, Chartboost, Media.net, Criteo, and many

21   other ad networks as well that we can talk about on the --

22   on other areas there's folks like Magnite and PubMatic that

23   compete directly with us as well. And I already mentioned

24   some of the competitive DSPs also.

25   Q   I'm not going to ask you to go through all of that, but

Direct Examination - S. Sheffer

1   I did want to take moment on Microsoft. What is your view

2   about the competitive landscape with Microsoft?

3   A   So Microsoft has made a number of investments over the

4   last -- in the last couple of years. They purchased Xandr

5   as an ad server, and they've relaunched it and rebranded it

6   as Microsoft Monetize. So that is a competitive ad server.

7   It's a very strong piece of technology, in addition to which

8   their purchase of LinkedIn many years ago gave them user

9   data that they're certainly using to create an advertising

10   business. They already have a search business; so they have

11   advertising demand from that. Their purchase of Activision

12   Blizzard King -- Activision Blizzard King -- so it's three

13   names together -- which is a gaming company, that gives them

14   a strong connection to a new interaction with users.

15   So when I look at that, they are creating an ad

16   technology and ad monetization system that will enable them

17   to utilize both their own demand and deliver ad monetization

18   and ad technology to publisher partners around the world.

19   Q   And to what extent does your team analyze statements

20   made by your competitors in the market?

21   A   We analyze those all the time because it gives us some

22   interesting insights.

23   Q   Can you describe how you do that?

24   A   Right. So we look at their marketing materials. We

25   look at their public -- we look at their financial

Direct Examination - S. Sheffer

1   statements. We look at their marketing materials. We look

2   at the sales pitches. We get feedback from our customers on

3   what they're telling their customers as well. So we look at

4   all that material, and we try to get a sense of where

5   they're headed with their strategy and their technology

6   development.

7   Q   And does what you just described apply to Microsoft?

8   A   Absolutely.

9   Q   Meta?

10   A   Yes.

11   Q   Criteo?

12   A   Yes.

13   Q   TikTok?

14   A   Yes.

15   Q   Trade Desk?

16   A   Yes.

17   Q   Others that you mentioned?

18   A   Absolutely.

19   Q   Okay. I'd like to specifically ask you about The Trade

20   Desk and whether you are aware or -- whether your team

21   tracks The Trade Desk earnings calls?

22   A   We do.

23   Q   Okay. And to what extent, if at all, have you

24   personally become aware of statements made in Trade Desk

25   earnings calls?

Direct Examination - S. Sheffer

1   A   So we review those earnings calls. We look at what our

2   competitors are saying about the marketplace, and we try to

3   get a sense of where they're headed with their strategic

4   direction and their technical direction. So it's pretty

5   important information for us.

6   Q   Does that impact you as the head of your group?

7   A   Absolutely. It gives us a sense of where we need to

8   focus our efforts and where we need to double our efforts.

9   Q   Okay. And specifically with respect to the Trade Desk,

10   what, if anything -- what, if any, impact on you has The

11   Trade Desk earnings calls had?

12   A   The most recent earnings calls -- there were some

13   statements in there that their CEO made around the

14   competitiveness of Google that I utilized to --

15   THE COURT: Just a second. We're getting an

16   objection.

17   Is this, again, after the time period of discovery

18   closed?

19   MR. TEITELBAUM: At least I believe -- based on

20   the transcript that we have in the defense binder, that's

21   the time frame we're talking about, Your Honor. We are

22   talking about August 8, 2024, at least based on what's in

23   the binder.

24   MS. DUNN: So this is a public statement that has

25   already come up in this trial. And, in particular, this

89

Direct Examination - S. Sheffer

1   witness read it. It impacted him, and he talked about it in

2   specific with respect to competition and with respect to his

3   team. So I don't seek to admit it for its truth, and it was

4   not an available document during the production period.

5   THE COURT: Well, the document is in evidence.

6   MS. DUNN: It is not, Your Honor, in evidence.

7   THE COURT: It was discussed.

8   MS. DUNN: It was discussed. It was discussed

9   but -- do you mind if I ask --

10   THE COURT: Wait. Wait. One at a time.

11   MS. DUNN: What happened was the CEO -- or I'm

12   sorry, the CRO from The Trade Desk testified. But because

13   the earnings statement was made by the CEO of The Trade

14   Desk, an objection was made that it was hearsay. Your Honor

15   didn't let it in.

16   In this circumstance, this witness read it and

17   conveyed it to his team and gave competitive direction to

18   his team. So I am offering it for the impact on the

19   listener and not for the truth of the matter.

20   THE COURT: I think you can ask this witness what,

21   if any, directions he's been giving to his team to address

22   perceptions of competitive pressure. That's certainly

23   within the scope. But this degree of specificity isn't

24   going to work if it didn't come out during discovery.

25   MR. TEITELBAUM: And we would just object to the

90

Direct Examination - S. Sheffer

1   discussion, given that we're talking about August of 2024,

2   after the discovery cutoff regardless of the --

3   THE COURT: So before August 2024, what, if any,

4   discussions was this witness having with his team to address

5   competitive problems?

6   MR. TEITELBAUM: I'm sorry, Your Honor.   We would

7   be asking for before September 2023, which was the fact

8   discovery cutoff.

9   THE COURT: All right.

10   MS. DUNN: Well, Your Honor, just for the record

11   then, there is some substantial testimony, including to

12   which we objected, that the plaintiffs' counsel elicited

13   from witnesses about up to the present day.   So if that rule

14   were to obtain, we'd have to go back and look at the record

15   because that has been allowed when they elicited it.   So

16   this is very narrow.   I'm happy to ask the question, Your

17   Honor, reframed, but I think that rule has not been applied

18   thus far.

19   THE COURT: Well, now that I'm thinking back, some

20   of the third parties who came in -- I don't think the timing

21   of their testimony was all that specific.   All right.

22   We need to keep this moving.   This is all not that

23   devastating or changing any of the core issues, I don't

24   think, in this case.   It almost sounds like it's going to

25   remedies versus liability, frankly.   But anyway, let's just

Direct Examination - S. Sheffer

1   continue this. All right.

2   BY MS. DUNN

3   Q   All right. Mr. Sheffer, what direction have you given

4   your team with respect to competition?

5   A   So after reading that earnings report and what the CEO

6   said about our competitive status, I did two things:

7   One was I said to our team, "We need to find a way

8   to show up better in the marketplace to compete more

9   effectively with The Trade Desk because. We need to do a

10   better job."

11   The second thing was I've used that as an internal

12   communication vehicle to try to get more resources for our

13   business from the senior leadership of Google.

14   Q   And when you say that -- can you just explain to the

15   Court what you conveyed to your team?

16   A   Yes. So the statement that was made by the CEO said

17   that Google was --

18   MR. TEITELBAUM: Objection.

19   THE COURT: At this point, I'm going to sustain

20   the objection. Quite frankly, a lot of this testimony is

21   going to be highly questionable and, I'm sure, open up a lot

22   of cross because, frankly, once Google is put on notice of

23   all of these lawsuits addressing these core issues, I think

24   some of this would already be tainted. All right. So think

25   about that. All right.

Direct Examination - S. Sheffer

1   BY MS. DUNN

2   Q   All right. Mr. Sheffer, in your view, does Google have

3   to compete for publisher business to get publishers to use

4   Google's tools?

5   A   Absolutely.

6   Q   And what is the process that Google engages in to

7   compete for publisher businesses in practice.

8   A   So one of the core processes is a RFP, which is a

9   request for proposal, that comes from publishers.

10 Publishers drive the entire process. It's the way by which

11 they make decisions around the ad technology that they're

12 utilizing.

13 Q   Okay. And are you personally involved in the RFP

14 process?

15 A   I am, yes.

16 Q   Okay. And what type of information does Google provide

17 in the context of the RFP process?

18 A   So there's typically three categories of information

19 that publishers ask for. One is the technical capabilities

20 of technology, of an ad server for example --

21   (Reporter clarification.)

22   THE COURT: I'm sorry. You do have to slow down.

23   THE WITNESS: Okay. Sorry.

24   THE COURT: It's the end of day, and it's too

25 fast. We have background noise every time the door opens

Direct Examination - S. Sheffer

1   and closes. So slow it down.

2   THE WITNESS: Sure. Sorry.

3   So there's three elements of -- usually three

4   elements of an RFP. The first is the technical capabilities

5   of the ad server. The second is the support and services

6   that Google or anyone else would provide for that ad server

7   installation. And the third is the commercial terms of

8   pricing. Those are the three major components.

9   BY MS. DUNN

10 Q   Okay. And let's start with the technical features.

11 What type of information is typically requested with respect

12 to innovation or technology?

13 A   So I think it's first important to mention that every

14 RFP is different. So every publisher approaches this in a

15 very different way. They ask for lots of different

16 information.

17   But a general sort of summary is around things

18 like reliability and uptime, latency, the accuracy of your

19 ability to both forecast and deliver ads, your ability to

20 deliver specific technical requirements -- like can you

21 handle this type of ad format, can you handle this type of

22 data, can you handle this type of integration with some of

23 the properties that we have, etc., etc. So there's a ton

24 of -- and, again, that varies widely across all of our

25 different publishers when we get that RFP because every

94

Direct Examination - S. Sheffer

1   installation is unique from a publisher perspective.

2   Q   And to what extent, if at all, do publishers ask Google

3   to create new technological features?

4   A   They ask us all the time. So in many cases, they may

5   ask for a feature or a capability that we don't already have

6   within Google Ad Manager. So that often becomes a

7   discussion point between us and the partner. And sometimes

8   those features that we agree to develop for that RFP are

9   then utilized to develop for the entire customer set, the

10   technology basis for the ad server or whatever product that

11   we're producing.

12   Q   Okay. And do you have any examples of times when

13   Google built new features or customizations for its

14   publisher customers?

15   A   Yes, I do. So one example is Discord. So Discord is a

16   communications platform content system. It's where users

17   come together. They have -- their inventory is split

18   between web inventory, app inventory, and a web app. So

19   this is a specific type of app that runs on a computer.

20   And they wanted us to develop a connection into

21   their web app that would specifically enable us to deliver

22   ads into that environment, which is not something that we

23   have right now. So that was very important to them.

24   Discord at the time was trying to make a decision

25   between building their own proprietary ad server or to go

Direct Examination - S. Sheffer

 1   with a third party. So this is really important for us to

 2   commit to in order to win that deal from them.

 3   Q   Okay. And the second thing that you mentioned was that

 4   the RFPs request pricing information. Can you speak to

 5   that?

 6   A   So pricing is one element of it, yes. So pricing

 7   typically comes in what are your ad serving fees. So we

 8   talked about that a little bit earlier. How much does it

 9   cost to serve an ad, as well as are there other additional

10   charges for data packages or how data gets put into those ad

11   requests. Then there's a conversation around the revenue

12   shares that are associated with programmatic ad serving or

13   the ad exchange, for example.

14   Q   Are there sometimes negotiation over those revenue

15   shares?

16   A   There are, yes.

17   Q   Okay. And you also mentioned that part of the RFP

18   process is service levels. Can you explain what that means?

19   A   Sure. So as you can imagine, given that the ad server

20   is such a critical piece of enterprise technology and

21   especially for the direct sales efforts, the publishers want

22   to make sure that if anything goes wrong, they can get help

23   and support for it.

24   So, for example, if a publisher is running a

25   livestream, a live sporting event, and they're trying to

96

Direct Examination - S. Sheffer

 1 utilize their ad server to put ads into that livestream,

 2 it's something that they want to make sure they have someone

 3 on call from our side in case something goes wrong that we

 4 can correct that problem immediately. So that's sort of an

 5 on-call technical services person there.

 6   But, obviously, there's other things that might go

 7 wrong from time to time with the product. So they also want

 8 to know that they can reach someone at Google to correct

 9 those problems and to raise them with our product

10 engineering team to get them fixed.

11 Q   Are you aware of any examples where Google had to make

12 business concessions in order to win business?

13 A   Absolutely, yes.

14 Q   And can you describe those?

15 A   Sure. So we had a recent competitive process for Roku

16 in which we had to make --

17   MR. TEITELBAUM: Same objection, Your Honor.

18   MS. DUNN: Okay. I don't know the date of that.

19 So if it's beyond the period, it's my mistake.

20   THE COURT: All right. Why don't you ask the

21 witness. We'll see whether it comes in or not.

22   MS. DUNN: Okay.

23 BY MS. DUNN

24 Q   What was the date of the Roku RFP that you're talking

25 about?

Direct Examination - S. Sheffer

1   A   The RFP, I believe, started last year. We concluded

2   the deal this year, if I remember correctly, 2024.

3   THE COURT: That's too close.

4   MS. DUNN: That's fine.

5   THE COURT: Sustained.

6   BY MS. DUNN

7   Q   Okay. Mr. Sheffer, do you have any examples prior to

8   September 2023 of when Google didn't win publisher business?

9   A   Yes, of course.

10 Q   Can you explain those to the Court?

11 A   Yes. So -- sorry. I'm just having a mental block for

12 just a second. Sorry.

13   THE COURT: I'll tell you what. Before you

14 answer, why don't we take the afternoon break until 4:30.

15   MS. DUNN: Thank you, Your Honor.

16   (Brief recess taken.)

17   THE COURT: All right.

18   MS. DUNN: Thank you, Your Honor. Also I only

19 have a few minutes left. So nearing the end here.

20 BY MS. DUNN

21 Q   Mr. Sheffer, right before the break, we were talking

22 about Google's submission of RFPs, and you had said that

23 occasionally sometimes Google wins, sometimes Google loses.

24   Do you recall that?

25 A   Yes. Yes.

Direct Examination - S. Sheffer

1   Q   Okay. I wanted to ask you in particular about one deal

2   that took place before the discovery period ended, and that

3   is the deal with respect to Netflix.

4   A   Yes.

5   Q   Okay. And you have personal knowledge about that, yes?

6   A   That's correct, yes.

7   Q   Okay. Please explain to the Court what the Netflix

8   deal was.

9   A   So Netflix -- we all -- Netflix is a video streaming

10   service. Netflix was looking for a partner for both ad

11   technology, ad serving in particular, as well as a partner

12   that would sell their streaming video inventory for

13   advertisements on a global basis. So it was both an ad tech

14   services deal, as well as representing their inventory and

15   selling that inventory, producing ads, and giving revenue to

16   Netflix.

17   Q   Okay. And who were the bidders for the Netflix deal,

18   if you know?

19   A   So Google was, as well as Microsoft.

20   Q   Okay. And what happened?

21   A   We ended up losing the deal to Microsoft.

22   Q   And when was that?

23   A   That was in 2023.

24   Q   Okay. And if you know, why did Google lose the Netflix

25   deal to Microsoft?

Direct Examination - S. Sheffer

1   A   So there were a number of factors. There was the ad

2   technology. Netflix wanted specific development done for

3   them with their ad technology stack, number one.

4   Number two, they wanted a revenue guarantee for

5   the inventory that their partner would then be representing

6   for ad sales.

7   And they wanted a sales team to actually go out

8   and sell that inventory.

9   The financial guarantee that they wanted was quite

10   large. Microsoft, ultimately, wanted to do all technical

11   work that they were asking for from their ad tech stack

12   provider, as well as gave them a much larger financial

13   guarantee than we were willing to give them.

14   Q   And what did Google do to compete for the Netflix deal?

15   A   So we had agreed to do development work for their

16   specific ad tech requirements. We also had agreed that we

17   were going to have our sales team represent their streaming

18   inventory against all their videos that they put ads

19   against, and we had offered them a financial guarantee as

20   well.

21   Q   If you'd look at your binder, Mr. Sheffer, at DTX 173.

22   THE COURT: Any objection to 173?

23   MR. TEITELBAUM: Just one moment, Your Honor.

24   No objection.

25   THE COURT: All right. It's in.

Direct Examination - S. Sheffer

1   MS. DUNN: Thank you, Your Honor.

2   BY MS. DUNN

3   Q   All right. Mr. Sheffer, if you could, look in your

4   binder at DTX 506.

5   A   DTX 506, got it.

6   THE COURT: Any objection to 506?

7   MR. TEITELBAUM: Just consistent with the Court's

8   prior ruling. No objection.

9   THE COURT: All right. It's in.

10 BY MS. DUNN

11 Q   Mr. Sheffer, do you recognize DTX 506?

12 A   I do.

13 Q   What is it?

14 A   Oh, sorry. I'm on the wrong tab. No -- this is 506,

15 yes.

16   So this is an email that I sent out to my global

17 team at the end of 2017 giving a high-level summary of our

18 2018 strategy plan.

19 Q   Okay. And at the top, you will see something that says

20 "TL;DR"?

21 A   Yes.

22 Q   What does TL;DR stand for?

23 A   That means too long, didn't read. It's a summary of

24 the rest of the email in a few sentences.

25 Q   Okay. And then if you scroll down from the TL;DR, it

101

Direct Examination - S. Sheffer

1   says -- you say to your team, "As we approach the final days

2   of 2017, I'd like to share a high-level overview of our 2018

3   global plan with you."

4   Do you see that?

5   A   I do.

6   Q   And the first sentence there reads, "Helping our

7   publishers and developers to grow their online businesses is

8   at the heart of what we do, tying directly to our OPG vision

9   to fund the world's information by enabling content

10   creators."

11   Do you see that?

12   A   I do.

13   Q   Okay. And then it goes on to say, "Why does this

14   matter? First, we enable our partners to pursue their

15   passions and create meaningful jobs. Second, we help to

16   create a globally diverse and open digital ecosystem of

17   information and viewpoints which is good for humanity.

18   Third, the creation of an open information ecosystem is

19   strategically important for Google, especially for our

20   search business."

21   Do you see that?

22   A   I do.

23   Q   Okay. And can you please explain what is this phrase,

24   "fund the world's information"?

25   A   So that is our vision. That is the motivating reason

Cross-Examination - S. Sheffer

1   that we come to work every day as a team. And the entire

2   idea here is that by providing the ad technology and ad

3   monetization services that we do, as well as the other

4   products and services, we are enabling funding for content

5   creators around the world to pursue their passions, to put

6   information out into the open ecosystem.

7   Q   And how long -- for how long has that been your vision

8   and your team's vision?

9   A   So I think we developed that vision formally in 2013,

10 but it was sort of a guiding principle even before that.

11   MS. DUNN: Your Honor, I pass the witness.

12   THE COURT: All right. Cross-examination?

13   MR. TEITELBAUM: Yes, Your Honor, and we'll be

14 passing out binders shortly, Your Honor.

15   CROSS-EXAMINATION

16   CROSS-EXAMINATION

17 BY MR. TEITELBAUM

18 Q   Good afternoon, Mr. Sheffer. How are you doing?

19 A   Good. How are you doing?

20 Q   I'm good. Thanks.

21   So I have a few questions for you just returning

22 to the subject of the different ad tech products that Google

23 has within the ad tech ecosystem demonstrative.

24 A   Yes.

25 Q   Is it fair to say that Google itself actually divides

103

Cross-Examination - S. Sheffer

1   inventory -- advertising inventory across the web into a

2   series of categories? Is that fair? For instance, do you

3   decide search inventory from instream video inventory?

4   A   Yes, we have separate products for search, as an

5   example.

6   Q   Okay. So why don't we take a look. If you could, go

7   to the white binder, I think, that should also be in front

8   of you --

9   A   Got it.

10   Q   -- at what's been marked for identification as PTX 764.

11   THE COURT: Any objection to 764?

12   MS. DUNN: The Court's indulgence, Your Honor.

13   I'm just trying to find it.

14   MR. TEITELBAUM: Just for the record, the metadata

15   sheet there in the front is just there for references.

16   THE COURT: All right. Now, as we prepare the

17   record for this case, all of these meta sheets should be

18   removed from the exhibits. Is that your intent or not?

19   MR. TEITELBAUM: Unless otherwise noted, I think

20   the default would be that the metadata sheets would not be

21   in there, Your Honor.

22   MS. DUNN: I think we can confer on that.

23   MR. TEITELBAUM: I'm not trying to keep them out.

24   I'm just --

25   THE COURT: I understand that, but the problem is

Cross-Examination - S. Sheffer

1   I'm not sure --

2   (The Court and the courtroom deputy confer.)

3   THE COURT: Yeah, we have not been taking them

4   out.   So at some point, we're going to have to make sure

5   that we have one accurate record.   All right?

6   MR. TEITELBAUM: Understood, Your Honor.

7   THE COURT: For the purposes of getting the trial

8   done, that's fine.

9   MR. TEITELBAUM: Okay.

10   THE COURT: Ms. Dunn, was there any objection,

11   then, to this exhibit?   It's 764.

12   MS. DUNN: Other than the standing caveat about

13   the comments in the margin, there's no objection.

14   THE COURT: All right.   So 764 is in without the

15   comments.

16   BY MR. TEITELBAUM

17   Q   And, Mr. Sheffer, at the very top of the first page

18   that actually has text on it -- so the Bates number ending

19   in 251 -- do you see that there at the top?   It says, "Sell

20   side BFM Deck."

21   A   Yes.

22   Q   And BFM, does that stand for business focus meeting?

23   A   Yes.

24   Q   Okay.   And you and Bonita Stewart are both listed next

25   to different categories of talking points?

Cross-Examination - S. Sheffer

1   A   Yes.

2   Q   Okay. So let's look first at the bottom of that page.

3   And so these are, like, notes that go along with the slide

4   deck, right?

5   A   They appear to be, yes.

6   Q   Okay. Underneath the "sell-side revenue metrics" slide

7   on that same page, there's a reference to "display web."

8   Do you see that there?

9   A   Yes.

10   Q   And then when we go to the next page at the bottom,

11   there's a reference to "display app."

12   Do you see that?

13   A   I do.

14   Q   So that just reflects that Google is keeping track of

15   display web inventory separate from display app inventory,

16   right?

17   A   We tracked those things -- the revenue separately

18   because they were different products, yeah.

19   Q   Okay. And then if we go to the next page at the

20   bottom, do you see "premium video" there?

21   A   Yes.

22   Q   And there's a reference to this column reflecting

23   "instream formats on instream video content," right?

24   A   In the second line, yes. Okay.

25   Q   Okay. And there's just a reflection that instream

Cross-Examination - S. Sheffer

1   video is a special kind of video that Google tracks in the

2   ordinary course of its business, right?

3   A   It is a type of video content that we do track, yes.

4   Q   Okay. The next page, you see "search"?

5   A   Yes.

6   Q   And next to that it actually says "the traditional

7   AdSense for Search business." That's what AFS stands for,

8   right?

9   A   Correct.

10 Q   So that's a separate category as well?

11 A   Yes.

12 Q   And then if we could go to the page ending in Bates

13 number 259. So it's several pages back.

14 A   Yes. Okay.

15 Q   You see "native web" there, right?

16 A   Yes.

17 Q   And so that's a separate category from display web that

18 we saw earlier on the very first page of the notes. Do you

19 recall that?

20 A   Yes. I think this was an emerging product area which

21 was why it was tracked separately, yeah.

22 Q   Okay. And then, similarly, we have "native app" on the

23 following page at the top, also tracked separately from

24 those other categories?

25 A   Yes. Because it was emerging, yep.

Cross-Examination - S. Sheffer

1   Q   And, finally, just the last couple of questions with

2   respect to this exhibit.

3   If we look at the Bates number ending in 261,

4   there's also a whole separate category for "video instream."

5   Do you see that?

6   A   I see it, yes.

7   Q   There's a comment that the instream video opportunity

8   in 2018 is estimated at about $11 billion?

9   A   Yes.

10 Q   That's because instream video is a particularly premium

11 type of advertising inventory, right, in terms of the cost

12 of -- in terms of CPM?

13 A   Yes.

14   MR. TEITELBAUM: We can take that exhibit down.

15   So if we could actually please bring up the

16 demonstrative that Google's counsel used with you.

17   THE COURT: The football.

18   MR. TEITELBAUM: Yeah, the spaghetti football,

19 Your Honor.

20   So with Mr. Spalding's assistance -- and I guess I

21 just want to confirm that the version that Google's counsel

22 created is now saved and indelibly marked in history before

23 I start asking for changes.

24   THE COURT: Yes.

25   MR. TEITELBAUM: Okay. So thank you in advance,

Cross-Examination - S. Sheffer

1   Mr. Spalding.

2   BY MR. TEITELBAUM

3   Q   Mr. Sheffer, AdMob at the bottom, that's just for

4   in-app inventory, right?

5   A   AdMob -- again, there's two components to it. One is

6   the ads that are delivered in app inventory, and there's a

7   mediation platform associated with it, but yes.

8   Q   Associated with in-app inventory?

9   A   That is correct, yes.

10   Q   Okay. So if I am *The Wall Street Journal*'s website and

11   I want to sell a display ad on the front page of my desktop

12   website --

13   A   Yes.

14   Q   -- AdMob is not useful to me, right?

15   A   It is not. You would use GAM because they're a GAM

16   customer. They use it for their web and their app

17   inventory.

18   MR. TEITELBAUM: All right. So, Mr. Spalding, if

19   we can, please remove AdMob and all of the connections

20   associated with it from this demonstrative.

21   BY MR. TEITELBAUM

22   Q   And then, as we saw in PTX 764, search inventory is

23   separate from display, right?

24   A   It is a -- it is a separate product designed to put ads

25   on search results.

Cross-Examination - S. Sheffer

1   Q   Okay. And so in other words, if I am, once again, *The*

2   *Wall Street Journal* and I want to sell a display ad banner

3   at the top of the front page, AdSense for Search, Search

4   O&O, I can't use those, right?

5   A   Well, I mean, Search O&O is Google's owned-and-operated

6   properties, and AdSense for Search is specifically for

7   search results, yes.

8   Q   So I can't use either of those tools to do what I just

9   described --

10   A   For a display ad on your page, that's correct, yes.

11   MR. TEITELBAUM: Okay. So, Mr. Spalding, if we

12   could, please remove those two.

13   BY MR. TEITELBAUM

14   Q   Let's talk about AdSense for Content for a second. So

15   I believe you mentioned that websites can sell display

16   inventory through AdSense for Content.

17   A   That is right.

18   Q   However, if I am, once again, *The Wall Street*

19   *Journal* -- a large publisher like *The Wall Street Journal* is

20   going to have both direct deals and going to want to sell

21   inventory programmatically or indirectly, correct?

22   A   Generally, yes.

23   Q   And AdSense for Content doesn't have functionality to

24   manage direct deals, correct?

25   A   That is correct, yes.

110

Cross-Examination - S. Sheffer

1   Q   And I believe you mentioned on your direct testimony

2   that many publishers, in fact, view DFP or other publisher

3   ad servers as mission critical for that very reason, right,

4   to be able to manage direct and indirect in the same tool?

5   A   That is correct.

6   MR. TEITELBAUM: Okay. So let's take AdSense for

7   Content off the board as well, please.

8   BY MR. TEITELBAUM

9   Q   Let's talk about AdX Direct for a second.

10   A   Sure.

11   Q   When a publisher like the -- I'll switch publications

12   just to try to be somewhat more diverse. Let's talk about

13   *The Staunton News Leader* now, please. If *The Staunton News*

14   *Leader* is selling inventory on its website using AdX Direct,

15   *The Staunton News Leader* can't get a real-time bid out of

16   AdX through AdX Direct, right?

17   A   When you say -- you're referring to their indirect

18   sales efforts --

19   Q   Correct.

20   A   -- for the Staunton --

21   Q   *The Staunton News Leader*, which is a Staunton,

22   Virginia --

23   A   Got it. *The Staunton News Leader*.

24   So for their indirect -- if we had a partnership

25   with them using AdX Direct, they could. But we do not have

111

Cross-Examination - S. Sheffer

1   a partnership with them on AdX Direct.

2   Q   Well, AdX will return a yes or no -- yes, AdX wants to

3   buy the impression or, no, AdX doesn't want to buy the

4   impression -- correct?

5   A   Sorry. Are we talking about AdX Direct or an

6   integration in GAM?

7   Q   We're talking about AdX Direct.

8   A   Okay. So AdX Direct receives a bid request. And it

9   may or may not return an ad depending on the type of

10 inventory and the content and the associated metadata, yes.

11 Q   But it does not return a price, correct? It just

12 returns a yes or no?

13 A   I don't know the technical details of whether it

14 returns a price or not.

15 Q   Okay. And that's partly because, as I believe you

16 mentioned also to one of my colleagues during your

17 deposition, that you're not the technical guy, right?

18 You're in the sales operation?

19 A   I'm on the sales and partnership sides, yes.

20 Q   All right. So I'm just going to ask that you take my

21 word for it for the moment.

22   MR. TEITELBAUM: And let's take AdX Direct off the

23 board as well, please.

24 BY MR. TEITELBAUM

25 Q   And so a question for you about GDN and competitor ad

Cross-Examination - S. Sheffer

1   networks --

2   A   Okay.

3   Q   So an ad network doesn't run auctions, right?

4   A   I think it depends on how the ad network determines

5   which ads to serve. In some cases, they may have multiple

6   different advertisers and could run an auction, but it

7   depends upon their decision-making process, which varies by

8   ad network.

9   Q   But that's not -- for instance, that's not a core

10   functionality of an ad network, right?

11   A   It could be. It just depends on what the ad network

12   decides to do for decision-making.

13   Q   Okay. But you're not really sure?

14   A   I don't know the intimate details of all the technology

15   of all the competitive ad networks.

16   Q   Okay. So once we finished sort of talking about all

17   the ways that a website can sell inventory, we're left

18   basically with header bidding, right? That's still there?

19   A   When you say "sell," though -- sorry. I just need some

20   clarification. Is that sell directly or sell indirectly?

21   Q   Let's stick with selling indirectly.

22   A   Okay. Well, selling indirectly, you can use AdSense.

23   Q   So let's stick with a publisher that has both direct

24   and indirect sales.

25   A   Okay. They can sell their indirect through AdSense.

113

Cross-Examination - S. Sheffer

1   Q   And then you're saying that they would also use DFP to

2   do their direct deals?

3   A   They can use what other ever ad server they would want

4   for their direct deals, yes.

5   Q   Okay. But you had testified previously, right, that

6   that's an extremely rare setup, right?

7   A   Sorry. Which --

8   Q   At your deposition, you explained that usually what

9   happens is a publisher, if it has direct deals, it's just

10 going to grow up to DFP, right?

11 A   It can grow into DFP or it uses competitive ad servers.

12 Like, it's completely up to the publisher to decide that.

13   MR. TEITELBAUM: If I could just have one moment,

14 Your Honor.

15   THE COURT: You're saying that a website that

16 wants to sell indirectly can use AdSense?

17   THE WITNESS: Absolutely, yes.

18   THE COURT: Just AdSense, not those other versions

19 of AdSense?

20   THE WITNESS: AdSense for Content, yes.

21 BY MR. TEITELBAUM

22 Q   And just to make sure we're clear, AdSense for Content

23 does not have a way of comparing direct deals versus

24 indirect sales, right?

25 A   No. That would be done within whatever decision-making

114

Redirect Examination - S. Sheffer

1   logic the publisher has on their technical stack. It could

2   be their proprietary decision-making process. It could be

3   how they organize their calls manually, or they could do

4   that with an ad server.

5   Q   Such as DFP?

6   A   Or any other ad server, such as Microsoft Monetize.

7   MR. TEITELBAUM: I'll pass the witness.

8   Thank you, Mr. Sheffer.

9   THE COURT: All right. Ms. Dunn?

10   MS. DUNN: Just very briefly, Your Honor.

11   REDIRECT EXAMINATION

12 BY MS. DUNN

13 Q   Mr. Sheffer, you were shown PTX 764. It's a document

14 that reflects a creation date sometime in 2017. Your name

15 is in the metadata but not on the document. Do you see

16 that?

17 A   764?

18 Q   764, yes.

19 A   Yes, I got it. Thank you.

20 Q   No problem. Okay.

21   And you were directed to something called display

22 web. And if you look at page 2 with Bates number 252, do

23 you see that?

24 A   Yes.

25 Q   All right. And you see under summary -- do you see

Redirect Examination - S. Sheffer

1	that?

1   that?

2   A   Sorry.

3   THE COURT: Look at what's on the screen.

4   BY MS. DUNN

5   Q   It's also on the screen.

6   A   It's on the top of the page.   Okay.

7   "Although 7 percent is reasonable," that part?

8   Q   Right.

9   A   Yep.

10   Q   And after that it says, "We should expect to face

11   headwinds as user preferences change web to app."

12   Do you see that?

13   A   I do.

14   Q   Okay.   And then if you turn to -- one second --

15   there -- on page 258 of this document, there's a section

16   where the title of the section is "Exchange and Network

17   Bidding."

18   Do you see that?

19   A   I do.

20   Q   Okay, and little A.   Do you see little A?

21   A   Little A, yes.

22   Q   It says, "The rise of header bidding, when pubs call

23   other competitive networks and exchanges like Amazon,

24   Facebook, or Rubicon, outside of the ad server is

25   exacerbating this problem."

116

Redirect Examination - S. Sheffer

1   Do you know what problem they're talking about

2   there?

3   A   So this is Amazon, Facebook, Rubicon competing directly

4   for publisher inventory.

5   Q   And do you see little B?

6   A   I do.

7   Q   And at risk of irritating the Court, you see where it

8   says, "This is posing something of an existential risk on

9   our sell-side business"?

10   Do you see that?

11   A   I do.

12   Q   "And there's a risk that DSPs, in addition to networks

13   and exchanges, also bid in header tags, putting much of our

14   AdX revenue at risk."

15   Do you see that?

16   A   I see that, yes.

17   Q   And that was the state of affairs, as you recall it, in

18   2017, correct?

19   A   That is correct.

20   MS. DUNN: Your Honor, no further questions.

21   MR. TEITELBAUM: Your Honor, with the Court's

22   indulgence, we have a little bit of an exhibit snafu, and I

23   do just have a few more questions for Mr. Sheffer related to

24   a document that I can hand up now.

25   THE COURT: No. We...

Redirect Examination - S. Sheffer

1   MR. TEITELBAUM: It relates to spoliation

2   preservation. So I do think it could be an appropriate

3   recross topic just for credibility purposes.

4   THE COURT: You know, I've heard the spoliation

5   issue so many times. I mean, unless it's absolutely new, I

6   understand the issue.

7   MR. TEITELBAUM: I do think that we need to build

8   a record with each witness, and it is --

9   THE COURT: I'm sorry. Do you just want to move

10   the exhibits into evidence?

11   MR. TEITELBAUM: This is not a disclosed exhibit.

12   I just have questions about one of Mr. Sheffer's emails very

13   briefly, and then we can move on.

14   MS. DUNN: Your Honor, in particular, because this

15   is not a disclosed exhibit, we're happy to meet and confer

16   about this.

17   MR. TEITELBAUM: I'm not seeking to enter it into

18   evidence.

19   MS. DUNN: Even more so.

20   THE COURT: Well, it's recross, but it's not

21   within the scope of the redirect. So I'm going to sustain

22   your objection.

23   MS. DUNN: Thank you, Your Honor.

24   THE COURT: All right. Now, are we going to

25   depositions now?

Read-In Deposition - B. John

1   MS. DUNN: Yes, Your Honor. The next Google

2   witness is via a read-in, the Microsoft witness Benneaser

3   John.

4   THE COURT: All right. I'm sorry. Is anybody

5   going to call Mr. Sheffer again as a witness? Does either

6   side anticipate calling him?

7   MS. DUNN: We'd like to reserve the ability to do

8   so.

9   THE COURT: All right. Then, Mr. Sheffer, you may

10   leave for today. But at some point, you may get recalled.

11   So make sure your contact information is accurate, and

12   you're not to discuss your testimony with any witness who

13   has not yet testified.

14   THE WITNESS: Understood.

15   THE COURT: All right. You're free to go.

16   THE WITNESS: Thank you.

17   MS. DUNN: Your Honor, this will take us

18   through -- I think take us through the end of the day

19   depending on how quickly we read.

20   THE COURT: All right. You can't read too

21   quickly.

22   MS. DUNN: I aim to not do that.

23   THE COURT: All right.

24   MS. DUNN: Thank you, Your Honor.

25   THE COURT: Is everybody set?

Read-In Deposition - B. John

1   (The deposition of Benneaser John is read as

2   follows:)

3   Q   Good afternoon. Can you state your name for the

4   record, please.

5   A   Benneaser John, and I go by Ben John.

6   Q   And where do you live?

7   A   Princeton, New Jersey.

8   Q   What is your current position at Microsoft?

9   A   VP of engineering.

10 Q   And when did you start working at Microsoft?

11 A   June 6, 2022.

12 Q   And prior to Microsoft, where did you work?

13 A   At Xandr.

14 Q   And when did you start working at Xandr?

15 A   I started at AppNexus late 2012, and AppNexus evolved

16 to Xandr as part of the AT&T acquisition.

17 Q   And what was your position at Xandr?

18 A   CTO.

19 Q   And you said prior to Xandr, you worked at AppNexus?

20 A   Yes.

21 Q   And when did you start working at AppNexus?

22 A   January 2013 to be exact.

23 Q   What was your position at AppNexus?

24 A   I played multiple roles. I started as head of

25 engineering for web services, then SVP of engineering for

120

Read-In Deposition - B. John

 1 | buy-side systems, and then I took the CTO role.

 2 | Q   And you're prepared to testify today as the corporate

 3 | representative of Microsoft, including as to topics relating

 4 | to Xandr, which was acquired by Microsoft in 2022, and also

 5 | AppNexus, which was acquired by AT&T in 2018 when it was

 6 | integrated into AT&T's new tech offering which was branded

 7 | Xandr, correct?

 8 | A   That is correct.

 9 | Q   And just for the record, Microsoft acquired your former

10 | company, Xandr. Was that in 2022?

11 | A   Uh-huh. Oh, sorry. Yes.

12 | Q   And Xandr, just for the record, is an advertising

13 | technology company with buy- and sell-side capabilities?

14 | A   That's correct, yes.

15 | MS. DUNN: Your Honor, we move to admit DTX 7, and

16 | we'll also put it on the screen.

17 | THE COURT: Any objection to 7?

18 | MS. WOOD: No objection.

19 | THE COURT: All right. It's in.

20 | BY MS. DUNN

21 | Q   I'm not going to ask you, sir, about this entire

22 | document, but my first question is do you have any reason to

23 | doubt that this is a presentation to the Microsoft board of

24 | directors regarding DoubleClick prepared by Microsoft

25 | employees in the ordinary course of business?

121

Read-In Deposition - B. John

1   And I will tell you that it was produced to DOJ in

2   response to DOJ's civil investigative demand.

3   A   It is a Microsoft document, yes.

4   Q   So at this point in 2007, the Microsoft board deck says

5   that Microsoft wanted to become the leading platform for all

6   media and the partner of choice for publishers looking to

7   monetize their content.

8   Do you see that?

9   A   Yes.

10   Q   And then if you look a little bit farther down in the

11   Microsoft board deck, do you see where Microsoft is

12   acknowledging that it was inevitable as of 2007 that

13   exchanges would develop because they are inherently more

14   efficient than one-to-one negotiated advertising? Do you

15   see that?

16   A   Yes, that is correct.

17   Q   To what extent, if you're aware, is it the case that

18   Google -- excuse me -- that Microsoft tried to prevent

19   Google from acquiring DoubleClick for Publishers in 2007?

20   A   Microsoft was in the conversations with DoubleClick for

21   providing a better monetization service for all the

22   publishers.

23   Q   And it says, "The price of Google's offer believed to

24   be $2.6 billion." Do you see that?

25   A   Yes.

122

Read-In Deposition - B. John

1   Q   Mr. John, you testified that, according to the

2   Microsoft board deck we've been discussing, Microsoft

3   believed Google had offered $2.6 billion to buy DoubleClick,

4   and then you testified that Microsoft bid $3 billion.

5   Do you recall that?

6   A   Yes, that is correct.

7   Q   And are you aware that after Microsoft learned that it

8   had not been selected for the DoubleClick acquisition, it

9   then tried to get the government to block the acquisition?

10   A   Microsoft appealed about the acquisition. That is

11   correct.

12   Q   And when you say it appealed the decision, to whom did

13   it appeal the decision?

14   A   I believe it is -- let me double-check -- the FTC.

15   Q   So tell me if I have this right. Microsoft Advertising

16   is a tool that advertisers can use to buy ads, and that

17   includes both search ads and display ads?

18   A   That is correct.

19   Q   And can advertisers use Microsoft Advertising to buy

20   ads on Microsoft's owned-and-operated properties?

21   A   Yes, they can.

22   Q   And when we're talking about Microsoft's

23   owned-and-operated properties, the ones that I'm familiar

24   with are Bing, MS News, Outlook.com, Edge, and Xbox.

25   Are all of those Microsoft owned-and-operated

Read-In Deposition - B. John

1   properties?

2   A   Yes.

3   Q   Can advertisers also use Microsoft Advertising to buy

4   ads on third-party sites?

5   A   Yes, they can.

6   Q   Which third-party sites can advertisers use Microsoft

7   Advertising to buy ads on?

8   A   Microsoft's open web. Like most other publishers,

9   anyone that does have a relationship with Microsoft

10   advertisers can buy.

11   Q   Can you name a few?

12   A   Axel Springer, Schipsted, yeah.

13   Q   Any others?

14   A   CNN. Most other publishers, Bloomberg, *Wall Street*

15   *Journal*, *New York Times*.

16   Q   Now, is it fair to say that Google Ads is a tool that

17   advertisers can use to buy search ads and display ads on

18   Google's owned-and-operated properties?

19   A   That is my understanding.

20   Q   And is it also your understanding that Microsoft

21   competes with Google -- Microsoft Advertising competes with

22   Google Ads?

23   A   That is correct.

24   Q   And does Microsoft Advertising also compete with

25   Facebook Ads?

Read-In Deposition - B. John

1   A   That is correct. Advertisers use multiple platforms

2   and -- yes.

3   Q   So my question, Mr. John, is are there other

4   competitors to Microsoft Advertising besides Google Ads and

5   Facebook Ads?

6   A   For advertisers, yes, Amazon, Trade Desk.

7   Q   Any other competitors besides Google Ads, Facebook Ads,

8   Amazon, and The Trade Desk?

9   A   There may be many, but yes.

10   Q   Can you think of any of the many, as you sit here,

11   other than the ones that you've mentioned?

12   A   Yahoo is the one.

13   Q   Yahoo. Any others?

14   A   Those are the ones I can remember for now.

15   Q   Okay. But there may be more?

16   A   Correct.

17   MS. DUNN: Your Honor, I move to admit DTX 847,

18   and we'll put it on the screen.

19   THE COURT: Any objection?

20   MS. WOOD: No objection.

21   THE COURT: All right. It's in.

22   Q   And after scanning it, do you have any reason to doubt

23   that this is a document prepared my Microsoft in the

24   ordinary course of business given that it was produced to

25   Google in response to a document subpoena?

125

Read-In Deposition - B. John

1   If this is helpful, the reason we ask this

2   question is just so you can authenticate it as a Microsoft

3   document.

4   A   Yes, it is a Microsoft document. It looks like it.

5   Q   And what's the Microsoft Audience Network?

6   A   The Microsoft Audience Network connects with Microsoft,

7   O&O properties, as well as reaches to the open-web

8   publishers taking advertisers and helping them to reach the

9   audience across Microsoft O&O, as well as the open web.

10   Q   Do you see where it says, "With Microsoft audience ads,

11   you can reach hundreds of millions of people through premium

12   sites that are brand-safe"? Do you see that?

13   A   Yes, I do.

14   Q   Just to see if I have this right, is the Microsoft

15   Audience Network, MSAN, the collection of sites on which ads

16   can appear if an advertiser uses a Microsoft advertising

17   buying tool?

18   A   If the advertiser uses the Microsoft Audience Network

19   buying tool, yes, they can reach Microsoft O&O properties,

20   as well as the publishers that are connected with Microsoft,

21   correct.

22   Q   And if you turn to page 20 of 28 in this deck, you'll

23   see a graph, and the title of the graph says --

24   MS. DUNN: And, Your Honor, the next two lines are

25   sealed.

Read-In Deposition - B. John

1   THE COURT: Okay.

2   Q   Do you see that?

3   A   Yes, I do.

4   Q   To what extent, if at all, is this graph illustrating

5   that the Microsoft Audience Network has experienced

6   significant revenue growth between July 2017 and August of

7   2019?

8   A   This is Microsoft Audience Network growth, if that's

9   what you mean. I believe that, yes.

10 Q   And it shows significant revenue growth over that

11 period of time?

12 A   That is correct.

13   MS. DUNN: Your Honor, move to admit DTX 1129.

14   MS. WOOD: No objection.

15   THE COURT: All right. It's in.

16 Q   Sir, do you recognize this as a Microsoft business

17 record?

18 A   Yes, it is a Microsoft document.

19 Q   It says, "Google import from Microsoft Advertising

20 makes copying campaigns from Google Ads easy, helping you

21 reach more customers instantly."

22   Do you see that?

23 A   Yes, I do.

24 Q   And do you know how Google import works?

25 A   Yes, I do.

127

Read-In Deposition - B. John

1   Q   How does it work?

2   A   Basically, as an advertiser, you can go to Google and

3   create a campaign, set up the target audience, set up the

4   keywords, set up the budget, all of those things, and those

5   campaigns run on Google. And if the same advertiser don't

6   want to come and set up all the metadata in Microsoft,

7   Google has a feature that exposes only the metadata to

8   Microsoft Advertising. An advertiser can log in to

9   Microsoft Advertising, click "Google import" as it shows on

10   the screen, and the metadata will come into the server. It

11   relieves some work for the advertisers. Then the advertiser

12   can edit within Microsoft, and the campaign executes. And

13   all the bidding happens within the Microsoft platform.

14   Q   So is it accurate, then, that advertisers don't have to

15   choose between Google and Microsoft; they can use both?

16   A   They can use both, correct.

17   Q   And do I have this right, that Google import can be

18   used with both -- both with search and display ad campaigns?

19   A   Yes, it can.

20   Q   And is it also accurate that Google doesn't preclude

21   advertisers from using Google import?

22   A   No, it does not. It's a feature of Google.

23   Q   Sir, are you aware that this lawsuit was filed by the

24   U.S. government against Google in early 2023?

25   A   Yes, I do.

Read-In Deposition - B. John

1   Q   And when did Microsoft acquire your former company,

2   Xandr?

3   A   So the deal was announced December 2021, and the close

4   was June 6, 2022.

5   Q   So a little over a year after Microsoft announced it

6   was acquiring Xandr and about six months after the deal

7   closed, the United States brought suit against Google?

8   A   Yes, that is correct based on the dates.

9   Q   Now, Xandr originated as a company called AppNexus, and

10   you were the CTO of AppNexus?

11   A   Yes, I was the CTO.

12   Q   Now, to what extent, if at all, did AppNexus have an

13   end-to-end technology stack that consisted of a publisher ad

14   server, an ad exchange, and a demand-side platform?

15   A   Yes. We did have both buy-side and sell-side --

16   Q   Right.

17   A   -- DSP and SSP and ad server.

18   MS. DUNN: Your Honor, move to admit DTX 379.

19   THE COURT: Any objection?

20   MS. WOOD: No objection.

21   THE COURT: All right. It's in.

22   MS. DUNN: And we'll put that on the screen.

23   Q   The metadata for this document indicates the custodian

24   is Brian O'Kelley. Who is Brian O'Kelley?

25   A   He was the CEO of AppNexus and my former boss.

Read-In Deposition - B. John

1   Q   Your former boss.

2   The file name is "Sayta outline."

3   Satya Nadella is the CEO of Microsoft?

4   A   That is correct.

5   Q   And do you have any reason to doubt that this is a

6   document prepared in the ordinary course by AppNexus?

7   A   It is prepared by AppNexus. I was very familiar with

8   this. I was part of this document.

9   Q   I'll direct your attention, sir, to the first paragraph

10   where it says, "It seems to be in Microsoft's interests, if

11   not existential for LinkedIn and a free Windows, to have

12   advertising ecosystem that isn't dependent on Google,

13   Facebook, and Amazon."

14   Do you see that?

15   A   Yes, I do.

16   Q   Now, LinkedIn is part of Microsoft, right?

17   A   That is correct.

18   Q   And it's a social media site app?

19   A   That's correct.

20   Q   And it's part of advertising ecosystem, correct?

21   A   That is correct.

22   Q   And if you look at the next paragraph, it goes on to

23   say, "This is an ideal time to make a big play. The battle

24   lines are being drawn to determine the major winners of the

25   upcoming cycle. Amazon is stealthy, aggressive, and

130

Read-In Deposition - B. John

1   winning. Google is a bit on the ropes and is surprisingly

2   vulnerable. Facebook and Apple have retrenched but have the

3   resources to come back with a new push sometime over the

4   next 12 to 24 months."

5   Now, sir, I'll remind you that this is a document

6   from 2017. Why did AppNexus consider Google on the ropes

7   and vulnerable in 2017?

8   A   Google was a direct competitor of AppNexus, and Google

9   and AppNexus was directly competing on the ad server market.

10 And the way Google approached the market and worked with the

11 ad server customers not enabling the demand, as well as the

12 supply outside, we, as a market leader -- and we thought it

13 is -- this is how we'll push based on how Google and

14 AppNexus was playing in the market on the publisher side, as

15 well as the demand side.

16 Q   Okay. So to what extent, then, did AppNexus see an

17 opportunity?

18 A   Because publishers were looking for open, better

19 monetization, and they were looking for optionality. So we

20 built our own ad server and used that as an opportunity to

21 help our publisher ecosystem.

22 Q   Now, this document also says that in 2017, Amazon is

23 stealthy, aggressive, and winning.

24   Why did AppNexus consider Amazon to be winning in

25 2017?

Read-In Deposition - B. John

1   A   Amazon has the retail dollars and also launched

2   sponsored ads. So Amazon has both retail dollars, as well

3   as buyers. And their advertising grew from, if I remember,

4   like, 1 billion to 3 billion to -- you know, growing

5   aggressively. And Amazon was also taking the demand dollars

6   that would go to the open web into the closed Amazon

7   ecosystem.

8   Q   And it's fair to say that, based on your testimony,

9   that at this point Google and Amazon are considered

10 competitors, correct?

11 A   That is correct.

12 Q   And this mentions Facebook and Apple. Are they also

13 considered competitors in 2017 in digital ads?

14 A   Facebookwise, yes. Amazon was entering into the

15 market -- sorry. Apple was entering into the market.

16 Q   Are there any other competitors at this point in 2017

17 that you can think of?

18 A   On the buy-side, as I said before, Trade Desk. On the

19 sell-side, Magnite -- now it is Magnite; before that, it was

20 Rubicon, I believe -- and PubMatic, Index Exchange. There

21 were multiple competitors on the buy-side and sell-side.

22 Q   If you look under the heading "State of AppNexus" --"

23 A   Yes, I see.

24 Q   Do you see that?

25 A   Uh-huh, yes.

132

Read-In Deposition - B. John

1   Q   The second-to-last bullet says, "Winning full-stack ad

2   serving deals head-to-head against DFP and fueling the

3   growth of header bidding to undermine AdX."

4   Do you see that?

5   A   Yes, I do.

6   Q   And this suggests that AppNexus believed it could win

7   full-stack ad serving deals head-to-head against DFP,

8   correct?

9   A   Yes, we did.

10   Q   And you say, "yes, we did." You mean that at that

11   time, AppNexus was winning full-stack ad serving deals

12   head-to-head against DFP?

13   A   Yes, that is correct.

14   Q   And what full-stack ad serving deals -- sorry. And

15   what full-stack ad serving deals was AppNexus winning

16   head-to-head against DFP at this time in 2017?

17   A   Axel Springer was one of our customers we migrated off

18   of Google. Schipsted was another customer we migrated off

19   of Google.

20   Q   Are there others that you can recall?

21   A   Birda, Sky in Australia.

22   Q   Okay. And also in this bullet, it says, "Fueling the

23   growth of header bidding to undermine AdX."

24   AdX is Google's ad exchange, correct?

25   A   That is correct.

Read-In Deposition - B. John

1   Q   And what does it mean when it says that "AppNexus is

2   working to undermine AdX"?

3   A   So header bidding was our solution to empower the

4   publishers to make better monetization, and Google was --

5   Google saw the down slow or slowdown after we launched

6   header bidding. So we wanted to leverage that growth to win

7   the deals against -- and leverage the optionality for our

8   customers for better monetization.

9   Q   All right. Now, if you go to the second page --

10   A   Yes.

11   Q   -- about a third of the way down the page, it says

12   "Partnership with AppNexus."

13   Do you see that?

14   A   Yes, I do.

15   Q   And am I right that this is talking about the

16   partnership between Microsoft and AppNexus?

17   A   That is correct.

18   Q   And it says, "Route all proprietary demand and O&O

19   supply through AppNexus to anchor an alternative

20   exchange/marketplace to Google and Facebook."

21   Do you see that?

22   A   Yes, I do.

23   Q   Now, what is meant by "proprietary demand"?

24   A   All advertisers that come to Microsoft advertising

25   solutions to buy both O&O supply, as well as the third-party

Read-In Deposition - B. John

1 supply, the demand advertising dollars comes through

2 Microsoft.   That's the proprietary demand.

3 Q   And it then says that "The partnership between

4 Microsoft and AppNexus is going to route that proprietary

5 demand and O&O supply through AppNexus."

6   And when it's talking about O&O supply, are those

7 the Microsoft O&Os we talked about early -- search, Bing

8 search, MSN, Outlook, Microsoft Edge, and the others that

9 you mentioned?

10 A   Everything you said except the Bing search because

11 AppNexus is a nonsearch programmatic marketplace.   But, yes,

12 MSN, Outlook, Skype, Xbox, all of those except search.

13 Q   And you mentioned Xbox, which is gaming, obviously,

14 right?

15 A   That is correct.

16 Q   Does Google have an analog to Xbox?

17 A   Not that I know of.

18 Q   Now, to what extent are you aware that effective

19 February 2017, Microsoft entered into an exclusive agreement

20 with AppNexus where it agreed to route at least 95 percent

21 of its remnant inventory through AppNexus?

22 A   I was familiar with that.

23 Q   Was the partnership between AppNexus and Microsoft a

24 strong success?

25 A   Yes.

Read-In Deposition - B. John

1   Q   To what extent, if at all, is it fair to say that the

2   Microsoft-AppNexus partnership made Microsoft a more

3   formidable competitor to the other companies that you

4   mentioned earlier?

5   A   The partnership was very small in specific markets for

6   the sale side and also on programmatic. But this is in no

7   way comparable to the competition, like Facebook and Google

8   and Amazon, because they were running pretty much all of it

9   at a large scale. So it is not comparable.

10 Q   In 2018, AT&T acquired AppNexus and rebranded it as

11 Xandr, correct?

12 A   That is correct.

13   MS. DUNN: Your Honor, move to admit DTX 939.

14   THE COURT: Any objection?

15   MS. WOOD: No objection.

16   THE COURT: All right. It's in.

17 Q   Do you have any reason to doubt that this is a document

18 prepared by Xandr in the normal course of business from

19 June 2020 given that it was produced to Google in response

20 to our document subpoena?

21 A   I believe this is a Xandr document.

22 Q   Now, I'll ask you to look at the executive summary at

23 the top of the page. The first bullet says, "AppNexus" --

24 which you testified was later rebranded as Xandr -- "was

25 acquired for its end-to-end tech."

Read-In Deposition - B. John

1   Do you see that?

2   A   Yes, I do.

3   Q   What were the benefits of what this document refers to

4   as the linkage between buy and sell side?

5   A   When you run a marketplace, connecting the buyers and

6   sellers through the underlying same platform will yield

7   better results for advertisers, and that -- and avoid

8   errors. And those are the efficiencies when you run a

9   marketplace, both buy and sell in the same ecosystem.

10 Q   And when you say that the linkage between buy and sell

11 side yields better results for advertisers, what

12 specifically are you talking about?

13 A   One, they can efficiently buy the supply with the right

14 way to match the audience because the audience data

15 underlying leverages both DSP and SSP underlying the same

16 infrastructure.

17   The second one is the reduction of errors.

18   The third one is you would be able to understand

19 what supply is available and sticky so that advertisers will

20 have much more visibility on what supply they can buy

21 through the same ecosystem.

22 Q   And if you look at the next section, it says,

23 "Investment rational: DSP."

24   Do you see that?

25 A   Yes, I do.

137

Read-In Deposition - B. John

1   Q   And it says, "The one rational is to grow digital media

2   spend and scale the marketplace."

3   And it refers to 58 percent of the buy-side spend

4   staying on the sell-side platform.

5   Do you see that?

6   A   Yes.

7   Q   Now, why does investing in the buy-side have the effect

8   of scaling the Xandr marketplace?

9   A   The advertising ecosystem starts with advertisers,

10   right? So advertisers would want to reach. And they're the

11   ones paying the money and paying the check. So you need to

12   have the demand to fuel the ecosystem on the platform.

13   Q   Right. So if you invest in the buy-side and fuel the

14   demand, that has the effect of scaling the rest of the

15   marketplace. Is that what you're saying?

16   A   That is one way to scale the platform because the

17   demand is the key for scaling the marketplace. And

18   providing the better tools and better reporting and

19   measurement technologies would enable the advertisers to use

20   our platform. That is the -- that is one of the key

21   investment thesis for investing in the DSP.

22   Q   And what specific benefits are there to publishers of

23   keeping the buy-side spend on the platform and going to the

24   sell-side?

25   A   So when publishers look at it, they're looking for

138

Read-In Deposition - B. John

1   demand in a way that they can access through the ecosystem,

2   and it's not just the only way to get that demand. Because,

3   you know, you can see it's 58 percent invest; 42 percent

4   comes from the other sources of the demand as well.

5   But there are platforms that handle only

6   supply-side and only buy-side. But having -- or reporting,

7   for example -- right. So it's much easier for publishers to

8   see how their inventory gets accessed, and they have the

9   visibility end to end in a transparent way is one of the

10   many -- or is one of the reasons publishers like this. And

11   this investment helped us.

12   Q   And is Xandr competing with other companies that have

13   buy and sell side integrated, as well as companies that just

14   do the buy-side and just do the sell-side?

15   A   Yes, we do both.

16   Q   And when you're scaling the marketplace, does that --

17   to what extent does that help both buyers and sellers, so

18   advertisers and publishers?

19   A   As I said before, it helps the advertisers. One is the

20   use of metrics because the audience that buyers bring in and

21   the audience that the publishers have, it's in the same

22   underlying platform and visibility and transparency. For a

23   given dollar that advertisers use, they can see how that

24   given dollar goes to different publishers and vice versa.

25   So those are the reasons and benefits for running the

Read-In Deposition - B. John

1   marketplace both sides.

2   Q   And you talked about the benefits for the advertisers.

3   What about the benefits for the publishers of keeping the

4   invest spend -- the buy-side spend on the supply-side

5   platform?

6   A   So the number one is the direct demand, right? So

7   they'll be able to get the demand directly and not wait for

8   external demand.

9   Also, there are product features, like deals and

10 programmatic guarantee. They'll be able to get a much

11 better packaging.

12   And there is another feature we call, like, to

13 inventory library. So they can package their inventory and

14 make it available to the buy-side customers.

15   And -- yeah, those are the publisher-side reasons.

16 Q   And will the publishers make more money?

17 A   Absolutely.

18 Q   And I think you testified earlier that in December of

19 2021, Microsoft announced it was acquiring Xandr.

20 A   That is correct.

21 Q   And do you recall how much Microsoft paid for Xandr?

22 A   I believe $900 million.

23   MS. DUNN: Your Honor, move to admit DTX 1203.

24   THE COURT: Any objection?

25   MS. WOOD: No objection.

Read-In Deposition - B. John

1   THE COURT: All right. It's in.

2   Q   And do you have any reason to doubt that this is a

3   document prepared by Microsoft in the ordinary course of

4   business?

5   A   No, I don't. This is a Microsoft document.

6   Q   And so at this point, the board was informed that this

7   acquisition of Xandr would enable Microsoft to continue to

8   compete effectively; is that right?

9   A   That is correct.

10   Q   And then it lists four things that Xandr would provide

11   Microsoft Advertising. Do you see that?

12   A   Yes, I do.

13   Q   1. A globally deployed DSP that will expand Microsoft

14   data and demand across the open-web.

15   2. An SSP used by over 2,200 premium publishers

16   to manage and optimize advertising against their supply.

17   3. Strong video and connected TV assets and

18   investment; and

19   4. A media platform which enables advertisers,

20   publishers, and retail clients to buy and sell media in

21   secure marketplaces across the internet.

22   Do you see that?

23   A   Yes, I do.

24   Q   And these were all things that the Microsoft board was

25   told it would acquire as assets with the Xandr acquisition,

Read-In Deposition - B. John

1 correct?

2 A   That is correct.

3 Q   And so at this point in 2021, the Microsoft board was

4 being told that this acquisition of Xandr would accelerate

5 Microsoft's growth and position Microsoft as a compelling

6 trusted alternative to competitors, right?

7 A   Yes, it is.

8 Q   But at this point, as you just said, there are multiple

9 competitors. Do you know how many at this point in 2021?

10 A   It's the same list that I mentioned before, Amazon,

11 Google, Facebook, Trade Desk, Magnite, PubMatic. And some

12 of them are also partners because they participate in the

13 ecosystem, if not most of them.

14 Q   I'm asking whether you were aware or you believe

15 Microsoft was aware that other competitors were making

16 investments in ad tech.

17 A   I believe it's a public knowledge and announcements how

18 much advertising is critical for their competition. And

19 they are publicly announcing those investments.

20 Q   I don't want to put words in your mouth. Are you

21 saying it was public knowledge that these competitors were

22 investing in ad tech?

23 A   That is correct.

24 Q   Okay. And you mentioned several companies, including

25 Amazon, Facebook, Google, Trade Desk, Magnite. What about

142

Read-In Deposition - B. John

1   Yahoo?   Was Yahoo a competitor as of December 2021?

2   A   Yahoo was a competitor, yes.

3   Q   And what about FreeWheel?

4   A   FreeWheel was a computer also, yes.

5   Q   And what about Index Exchange?

6   A   Index Exchange on the publisher side, yes.

7   Q   Criteo?

8   A   Criteo was a competitor too. They are mostly focusing

9   on the targeting platform, but yes.

10   Q   Anyone I haven't mentioned?

11   A   I'm sure there is plenty because the ecosystem has a

12   lot. So even these three I didn't mention before. I'm sure

13   there is plenty.

14   Q   Now, I think before I mentioned in the document you

15   brought with you, in 2021 it says, "Based on strong success,

16   Microsoft and Xandr renewed advertising sales and service

17   agreement through FY 26."

18   Do you see that?

19   A   Yes.

20   Q   And so "we," is this referring to the strong success

21   that Microsoft and Xandr had even up until 2021?

22   A   That is correct.

23   Q   Now, in 2019, Microsoft acquired something called

24   PromoteIQ.

25   A   That is correct.

143

Read-In Deposition - B. John

1   Q   What is PromoteIQ?

2   A   PromoteIQ is a retail media ad platform that

3   facilitates buy and sell for the retail brands. They can

4   buy -- brands can buy targeted advertising on the retail

5   brand websites.

6   Q   And does Google have anything like PromoteIQ?

7   A   Not that I'm aware of.

8   Q   But advertisers through Microsoft can buy through

9   PromoteIQ?

10   A   That is correct.

11   Q   And so is it accurate that in 2021 Microsoft introduced

12   Microsoft audience ads which would help search advertisers

13   get additional high-quality ad traffic from nonsearch

14   placements?

15   A   That is correct.

16   Q   And just so I make sure I understand this, those are

17   the same advertisers who sometimes advertise on search are

18   now advertising in nonsearch placements, right?

19   A   Yes, it is.

20   Q   To what extent, if at all, are you aware that following

21   Microsoft's acquisition of Xandr, Microsoft won a bid to

22   become Netflix's ad tech provider?

23   A   I'm very familiar.

24   MS. DUNN: Your Honor, move to admit 1367.

25   MS. WOOD: No objection.

Read-In Deposition - B. John

1   THE COURT: All right. It's in.

2   Q   This is a document that has been produced to us by

3   Microsoft, and it concerns the agreement between Microsoft

4   and Netflix. Do you see that?

5   A   Yes, I do.

6   Q   And what role, if any, did Microsoft's ownership of

7   Xandr play in persuading Netflix to sign with Microsoft?

8   A   Xandr brought the technology for video, both buy and

9   sell side. That was one of the critical elements for

10   Netflix to choose Microsoft.

11   Q   And to what extent, if at all, was this Netflix

12   agreement a big deal for Microsoft?

13   A   It is a big deal.

14   Q   Why is that?

15   A   Because Netflix is one of the premium publishers, and

16   Netflix is launching advertisement for the first time. And

17   Netflix has a good target audience that advertisers are

18   looking to reach.

19   Q   What are halo effects?

20   A   It is a public acknowledgment that Xandr has a leading

21   CTV market -- marketplace. A premium publisher like Netflix

22   can leverage the technology, and publishers are looking for

23   open-web. And the reason that Netflix chose Microsoft and

24   Xandr is now going to be publicly known, and that will bring

25   additional value and additional opportunities for Microsoft.

145

Read-In Deposition - B. John

1 Q   When you say "open-web," what do you mean?

2 A   Meaning taking the demand and openly making it

3 available for all publishers.

4 Q   And what halo effects of the Netflix acquisition were

5 being seen in connected TV?

6 A   As I said, it's about these companies mentioned here.

7 They'll be able to leverage the technology that Xandr built

8 for CTV. So that's the halo effect.

9 Q   And when you say the companies mentioned here --

10   MS. DUNN: And then don't read the sealed line.

11 Q   And so because of the Netflix acquisition, those

12 companies will be able to advertise through Microsoft on

13 connected TV?

14 A   That is correct.

15   MS. DUNN: Company named sealed.

16 Q   Out for more engagement on advertising solutions. Do

17 you see that?

18 A   That is correct, yes.

19 Q   So it's fair to say that on the buy-side, the halo

20 effect of Netflix was resulting in outreach by all of those

21 companies?

22 A   That is correct.

23 Q   And I just want to make clear for the record that

24 whether -- the extent to which you agree that all of the

25 things that we've discussed -- the work with Yahoo,

146

Read-In Deposition - B. John

1 PromoteIQ, the Xandr acquisition, the Netflix advertising

2 agreement, and all of these halo effects that we just

3 discussed -- were already being discussed prior to the

4 filing of the DOJ's lawsuit in 2023.

5 A   That is correct.

6   MS. DUNN: Your Honor, move to admit DTX 1755.

7   THE COURT: 1755, any objection?

8   MS. WOOD: No objection.

9   THE COURT: All right.   It's in.

10 Q   Mr. John, I think you just testified to this, but is

11 what you just drew an accurate depiction of the Microsoft

12 Advertising ecosystem?

13 A   As of today, correct.

14   MS. DUNN: Your Honor, I don't want to take it

15 down if you're not ready, but the next questions don't deal

16 with this.   So I'll just leave it up for, like, 30 seconds.

17   MS. WOOD: It's in the binder, Your Honor.   It's

18 in the record.

19   THE COURT: That's fine.   We'll look at it down

20 the road.

21 Q   And have you ever heard the phrase "bid shading"?

22 A   Yes, I do.

23 Q   And what is bid shading?

24 A   Bid shading is when a buyer bids for a specific dollar

25 amount, let's say $10, and second-price auction, let's say,

Read-In Deposition - B. John

1   two bid comes, $10 and $9. The $9 would be the winning bid

2   if you used the second-price auction. If you used the

3   first-price auction, $10 would be the first winning bid.

4   And it sounds good from a publisher point of view, the $10.

5   But from advertisers' point of view, it's also good because

6   they'll reach the right audience. They're willing to pay

7   more. But it also depletes the budgets very quickly. So

8   there is a balance based on the optimized value for the

9   inventory and how much the advertisers can pay. You adjust

10   the price between first price and second price, and that

11   adjustment is through algorithms. That is called bid

12   shading.

13   Q   And it sounds like what you're saying is that bid

14   shading is not just good for advertisers; it's also good for

15   publishers?

16   A   That is correct.

17   Q   And just to be specific, why is bid shading good for

18   advertisers in your opinion?

19   A   Because they can use -- they can use the savings to

20   reach more and buy more inventory. On the publisher side

21   now, it sounds like they'll get more money to begin with,

22   but the budget dollars will be depleted more. So they'll

23   get longer -- they'll get -- they'll be able to optimize

24   further along in budget dollars.

25   Q   And to what extent, if at all, is bid shading good for

Read-In Deposition - B. John

1   publishers?

2   A   Because publishers -- advertisers will spend more if

3   they have more budget dollars. So they will probably get --

4   they will get more budget dollars in the long run for the

5   same inventory.

6   Q   What is Xandr's bid shading feature called?

7   A   It's bid shading.

8   Q   Okay. Is it -- is it called bid price optimization?

9   A   It's an algorithm called BP, or bid price optimization,

10 correct.

11 Q   Understood. And to what extent, if at all, are you

12 aware that besides Microsoft and Google, other companies

13 have bid shading features?

14 A   Trade Desk has bid shading features as well.

15 Q   What, if anything, distinguishes Trade Desk's bid

16 shading feature from the bid shading feature of Microsoft

17 and Google?

18 A   Its algorithm is different. It's individual

19 algorithms. But the key difference is Trade Desk charges

20 for it, and we don't charge for it.

21 Q   Mr. John, you just testified that prior to the DOJ

22 filing its lawsuit, it was publicly known that Microsoft had

23 access to first-party data, right?

24 A   Its own first-party data.

25 Q   Its own first-party data?

149

Read-In Deposition - B. John

 1 A   Access to -- can you clarify who has access to what?

 2 Q   That advertisers advertising through Microsoft tools

 3 had access to Microsoft's own first-party data?

 4 A   That's launched only recently, two weeks ago.

 5 Q   And it was publicly known that Xandr had that

 6 capability?

 7 A   That is correct.

 8 Q   And also before the government filed its complaint, it

 9 was known that Xandr brought to Microsoft buy-side tools,

10 sell-side tools, and an exchange, correct?

11 A   That is correct.

12 Q   And also prior to the government filing its complaint,

13 it was publicly known that Microsoft had AI technology,

14 right?

15 A   That's correct.

16 Q   And also prior to the government filing its complaint,

17 it was publicly known that Microsoft had Xbox, correct?

18 A   That is correct.

19 Q   And that it was trying to acquire Activision Blizzard.

20 A   I don't remember the dates but --

21 Q   That's publicly known, right?

22 A   Yes.

23 Q   And that it had won this exclusive arrangement with

24 Netflix, correct?

25 A   That is correct.

Read-In Deposition - B. John

1 Q   And that it had this -- had acquired PromoteIQ, which

2 gave advertisers access to retail, correct?

3 A   That is correct.

4   MS. DUNN: Your Honor, I'll give the Court a

5 minute to read the next portion, which is sealed.

6   THE COURT: Thank you.

7 Q   When a publisher uses Xandr's publisher ad server and

8 mediation to access AdX demand, who bids first and who bids

9 second?

10 A   Xandr bids first, and we check with Google whether they

11 have a higher bid. Then we make a decision.

12 Q   And who bids last when a publisher uses Xandr's

13 publisher ad server in conjunction with mediation?

14 A   Google, and it's also the configuration of the line

15 item. It is something you can do.

16 Q   Is it ideal for Xandr to have to use a mediation system

17 in which Google has a last look?

18 A   It is not ideal. The reason we are doing that -- based

19 on the feedback that we need to get access to the Google

20 demand, we are doing that.

21 Q   Why is it not ideal for Google to have a last look when

22 a publisher uses Xandr's publisher ad server and mediation?

23 A   A couple of reasons. One, as a publisher, they have to

24 manage two accounts, and they have to pay both the fee to

25 Xandr as well as to Google. And they are managing multiple

151

Read-In Deposition - B. John

 1   line items, one for Xandr and one for Google. Both

 2   operationally it's expensive, as well as when it comes to

 3   the performance, it's also expensive. The third one is

 4   they're not getting all of the demand even through

 5   mediation; so it's kind of a patch.

 6   Q   Why is when Xandr's publisher ad server connects

 7   through mediation and that gets AdX last look, why is that

 8   not ideal from Xandr's perspective?

 9   A   Google can override a penny and just win the bid.

10   Q   And why is that not ideal from Xandr's perspective?

11   A   Because you can win the bid, and it's -- and you're not

12   giving an opportunity for other bidders.

13   Q   A few minutes ago I think you mentioned that Xandr

14   recently lost a client to Google's publisher ad server and

15   that client was using mediation.

16   Do you remember that?

17   A   That is correct.

18   Q   Which client was that?

19   Okay. Sorry. Oops, okay.

20   A   Sorry. Switzerland specifically.

21   Q   Say the last thing again.

22   A   It was Switzerland.

23   Q   Okay. What's your understanding of why -- company

24   name -- switched from Xandr's publisher ad server to

25   Google's publisher ad server?

Read-In Deposition - B. John

1   A   It's specifically the AdX demand that they were not --

2   that they were losing, and they were able to get that demand

3   when they migrated to Google.

4   Q   I think you mentioned that when a publisher uses

5   Xandr's mediation system, the publisher does not get the

6   full AdX demand?

7   A   That is correct.

8   Q   Why is that?

9   A   Because that is my understanding when Google

10 prioritizes the demand or gets the demand through both

11 AdWords or DV360. Google ad server customers, when they

12 manage the line items when they run, they get the priority

13 on the demand.

14 Q   Who are Xandr's main competitors for publisher ad

15 serving for display?

16 A   For display, it's Google ad server.

17 Q   Why do you say that Google's ad server is Xandr's main

18 competitor for publisher ad serving for display?

19 A   Google has been -- it started with the DoubleClick

20 acquisition, and Google has been investing heavily in the

21 product and also activating all the publishers, both

22 small-scale, as well as large-scale publishers globally. So

23 they have an ad server footprint with the customers

24 globally.

25 Q   Is Facebook a competitor for Xandr's publisher ad

153

Read-In Deposition - B. John

 1 server and the publisher ad server business for display?

 2 A   No, they're not.

 3 Q   Is Apple a competitor for Xandr's publisher ad server,

 4 publisher ad server business for display?

 5 A   No, they're not.

 6 Q   Is Amazon a competitor for Xandr's publisher ad server

 7 and the publisher ad server business for display?

 8 A   They have an SSP, but I haven't seen Amazon selling ad

 9 servers the same way that Google and Xandr are selling.

10 Q   So earlier counsel for Google asked you questions about

11 Xandr competing with Facebook, Amazon, Apple, and Amazon.

12   Do you remember that?

13 A   Yes, I do.

14 Q   Are Facebook, Apple, and Amazon competitors in the

15 publisher ad server business for display?

16 A   No. They are on the buy-side customers' competitors

17 because advertisers go to Facebook or Google or Apple or

18 Amazon, and we all compete for the same advertising dollars.

19 That's what I meant.

20 Q   Focusing on the display of publisher ad server business

21 specifically, are Facebook, Apple, and Amazon competitors

22 for Xandr's publisher ad server?

23 A   No.

24 Q   Who are Xandr's main competitors in the display

25 exchange business?

Read-In Deposition - B. John

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 1   A    When you say "exchange," I'm assuming you're referring

 2   to the SSP or the ad server because if it's ad server, it's

 3   Google.  If it's exchange or SSPs, it's Magnite, Publica,

 4   Index Ex -- sorry -- Index Exchange and PubMatic.

 5   Q    Can you just repeat the names, the list of competitors?

 6   A    Magnite, PubMatic, Index Exchange.

 7   Q    Okay.

 8   A    They're the major exchange competitors.

 9   Q    Okay.  So what I think what you said was Xandr's -- for

10   publisher ad serving, Xandr's main competitor is Google?

11   A    For display advertising.

12   Q    For display?

13   A    Correct.

14   Q    And for SSPs, does Xandr's main SSP competitors include

15   Google's AdX?

16   A    That's correct.

17   Q    So for SSPs, Xandr's main competitors are for display

18   Google AdX, Magnite, PubMatic, and Index; is that right?

19   A    That is correct.

20   Q    Is Facebook a competitor for Xandr's SSP for display?

21   A    No.

22   Q    Is Apple a competitor for Xandr's SSP for display?

23   A    No.

24   Q    Is Amazon a competitor for Xandr for display?

25   A    SSP -- they have a TAM or the hybrid -- sorry -- header
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155

Read-In Deposition - B. John

 1 bid equivalent, yes.

 2 Q   Does Amazon have an SSP that third parties can access?

 3 A   I believe so.

 4 Q   A minute ago you listed -- when you listed Xandr's main

 5 competitors for SSP, you did not include Amazon.

 6 A   Yeah.

 7 Q   Did you do that on purpose, or did you forget?

 8 A   I missed that.

 9 Q   Who is Xandr's biggest competitor for display SSPs?

10 A   It's Magnite, Index Exchange, PubMatic, Amazon, yeah.

11 Q   In the past ten years, how many major U.S. publishers

12 has Xandr tried to convince to switch from Google for

13 publisher ad serving to Xandr for publisher ad serving for

14 display?

15 A   Multiple. And from a product feature perspective, we

16 meet the requirements of all the RFPs and customers. But

17 then when it comes to either -- the both -- the migration

18 costs and the loss of demand, customers back off.

19 Q   Can you list specific publishers, U.S. publishers? In

20 the last ten years, how easy or difficult has it been for

21 Xandr, as a publisher ad server, to compete with Google's

22 publisher ad server for display in the U.S.?

23 A   It's very difficult. We're not able to penetrate or

24 migrate any large publishers in the U.S. even though, you

25 know, we are headquartered here. We have teams and

Read-In Deposition - B. John

1   engineers and sales force here. Europe is not our

2   headquarters, but we have our teams. It's very hard.

3   Q   How would you characterize Google's position in the

4   publisher ad server business in the U.S.?

5   A   They're the leading market player, and almost all

6   publishers use Google ad server.

7   Q   Sure. What impact, if any, is there on competition

8   from the fact that Google demand is now fully available to

9   publishers unless the publishers use DFP -- Google DFP as

10   their publisher ad server?

11   A   So the impact will be there will not be any other ad

12   server other than Google. And Google will have the say in

13   how much or how publishers can monetize or get the better

14   yield. And that is -- and that will be the impact.

15   Q   If the display publisher ad server business were more

16   competitive, would that be bad or good for publishers?

17   A   It's absolutely good for publishers.

18   Q   Why would it be absolutely good for publishers if the

19   display publisher ad server business were to be more

20   competitive?

21   A   They have an opportunity. They run the RFPs. Every

22   time they have an opportunity to migrate and it's better

23   monetization, not when they're locked down, and ability to

24   try other features. So that's -- yeah, those are the things

25   that publishers would miss.

Read-In Deposition - B. John

1   Q   Is it fair to say that Google's publisher ad server has

2   been successful in the display publisher ad server business?

3   A   Based on the market leading and based on the market

4   presentation, yes.

5   Q   Is Google's publisher ad server success due to Google

6   competing fairly on the merits and having the best product?

7   A   Based on what I hear and see, the documentation, Google

8   don't have the best product. They invest a lot in the

9   product. But as I said, product is not the only reason

10   customers or publishers stay with or work with Google ad

11   server. It's the demand and stickiness.

12   Q   When Xandr is the publisher ad server for a publisher,

13   does Xandr prevent the publisher from using different price

14   floors for different exchanges?

15   A   No, we did not.

16   Q   Why not?

17   A   We give the controls to the publisher, how they want to

18   set the price, and that's the price we use for the bidding

19   auction.

20   Q   Why did Xandr allow publishers to set different price

21   floors for different exchanges?

22   A   Depending upon the placements and the type of

23   inventory, they'll be able to manage the floor prices. And

24   it is a feature that we give them full control how they

25   manage it.

Read-In Deposition - B. John

 1   Q   What benefits, if any, result to publishers from Xandr

 2   allowing publishers to set different price floors for

 3   different exchanges?

 4   A   So they are -- they can -- they know the inventory

 5   better. They know their audience better. Based on how they

 6   predict their page views and the seasonality and the types

 7   of uses and audience and timing, they can have different

 8   flow-through. It's all about powering the publishers so

 9   they can monetize their content better.

10   Q   One of the things that I think you said was customers

11   are attracted to the scale marketplace.

12   A   That is correct.

13   Q   What do you mean by that?

14   A   So when customers are looking for the growth and the

15   publisher community looks for the monetization, the

16   advertiser community looks for ROAS, return on ad spend.

17   They look for the marketplace liquidity and growth. And

18   that's where, you know, they would like to get the value

19   that they're looking for, and it's a network effect. When

20   you run a marketplace that brings the overall good, it's

21   like -- brings the virtuous cycle.

22   Q   So a second ago you used the word "network effect."

23   What did you mean by that?

24   A   So when you bring the demand, the demand looks for the

25   supply. But the demand or the advertiser is not looking for

Read-In Deposition - B. John

1   one supply; they're looking for multiple types of supply

2   where the audience are. It's like the diverse audience or

3   the customers are on different platforms. So you need to

4   have a diverse set of publishers, of inventory, of format,

5   and that's what you need. And these players would only come

6   if they have also a diverse set of demands. They don't want

7   only one specific type of demand come to their publisher

8   property. So it's like you need to have a dynamic nature of

9   advertising dollars, and you need to have a dynamic

10   nature -- a diverse nature of the inventory of publishers as

11   well. And when you bring them, it brings the network effect

12   that grows.

13   Q   So why does the display SSP business have a

14   winner-take-most dynamic?

15   A   Because when it comes to an SSP, you are operating on a

16   model that publishers are -- the winning bid will be based

17   on multiple facts and you are not the only one. So there

18   are multiple partners when you use header bidding and when

19   you use waterfall technologies.

20   And then you have to have the sophisticated

21   algorithms, and you have to bring the demand. And all of

22   those brings -- to make sure your publisher connection wins

23   the auction.

24   Q   What connection, if any, is there between the

25   winner-take-most dynamic for SSPs for display and the

Read-In Deposition - B. John

 1 sophisticated algorithms that you described?

 2 A   That is one part of it. And the more the publisher

 3 wins, the algorithm learns and gets optimized. And that's

 4 where -- you know, that's how machine learning algorithms

 5 work. It gets a sample set. It feeds to itself, and it

 6 improves by itself. And if we get the more supply and if we

 7 make the supply algorithms learn the supply, we'll be able

 8 to make supply wins and monetize better.

 9   THE COURT: All right. I think it's getting close

10 enough to the end of the day that we should close this down.

11 I would think we'll start Monday morning. There's not much

12 left, and that's what we'll do.

13   And then, after that, is it still your plan to

14 call -- is Marco Hardie a person or a deposition?

15   MS. DUNN: Marco Hardie is a person; although, I

16 think we will -- let me just confer with Ms. Rhee because I

17 think we may have a different witness for first thing in the

18 morning.

19   THE COURT: All right.

20   (Counsel confer.)

21   MS. DUNN: Okay. Mr. Hardie lives locally, and

22 our other witness lives not in town. So we are going to

23 call Mr. Korula after we finish with the Microsoft read-in.

24   THE COURT: All right. And just so I have a sense

25 for manpower purposes of Monday, besides this read-in, is

161

 1 | there any other read-in that's being scheduled for Monday?

 2 | MS. DUNN: Yeah. So Mr. Korula is likely not to

 3 | be a short witness. And so the answer to Your Honor's

 4 | question depends, in part, on plaintiffs' cross. If we

 5 | finish early enough, there are live witnesses we would

 6 | prefer to put on, but we need to look at the timing of

 7 | everything.

 8 | THE COURT: No. I'm sorry. Do you anticipate

 9 | calling anybody by deposition Monday?

10 | MS. DUNN: Probably not, Your Honor.

11 | THE COURT: Okay. That's what I need to know at

12 | this point. All right.

13 | So, again, there's nothing happening before. So

14 | you can leave your tables if you are comfortable doing that.

15 | We'll start Monday at 9:00. Make sure you have your list of

16 | witnesses in order that each side has.

17 | And we'll now read the exhibits that we think were

18 | entered into evidence today for the record.

19 | You all set?

20 | MS. WOOD: Yes, Your Honor.

21 | MS. DUNN: Yes.

22 | THE COURTROOM DEPUTY: DTX 1898, DTX 1420, PTX

23 | 1249, PTX 1237 and 1237A, PTX 1260 and 1260A, DTX 868, DTX

24 | 1920, DTX 1922, PTX 1459, PTX 1461, PTX 1280, PTX 1384, PTX

25 | 1279, PTX 1262 and 1262A, PTX 1239 and 1239A, PTX 1277 and

1   1277A, PTX 1236 and 1236A, PTX 1281 and 1281A, PTX 1435 and

2   1435A, PTX 1388 and PTX 1388A, PTX 580, PTX 1392, PTX 1092,

3   PTX 1093, PTX 1096, PTX 1099, DTX 1511, DTX 173, DTX 506,

4   PTX 764, DTX 7, DTX 847, DTX 1129, DTX 379, DTX 939;

5   DTX 1203, DTX 1367, and DTX 1755.

6   (Counsel confer.)

7   THE COURT: Defendant's 1420, there were only

8   specific pages we were going to take from that. Do you

9   remember?

10   MS. DUNN: I'm sorry, Your Honor. I couldn't

11   hear.

12   THE COURT: Defense Exhibit 1420.

13   MS. DUNN: I don't -- I do not see that on my

14   sheet. I have 1444 that I have written down but didn't

15   hear, but not 1420.

16   MS. WOOD: For which witness? Do we know?

17   THE COURTROOM DEPUTY: It was cross for Mr. Lee.

18   MS. WOOD: I don't have 1420.

19   MS. DUNN: It's the Criteo 10K, I'm told.

20   MS. WOOD: So that was not admitted.

21   THE COURT: We chose not to finally admit it.

22   Okay. That's fine. I know we had talked about just one or

23   two pages from it, but if it was not formally admitted, then

24   it's not in. All right.

25   MS. DUNN: The pages were admitted.

1   THE COURTROOM DEPUTY: I thought it was only two

2   pages. I wrote down 12 and 13. It wanted to make sure.

3   THE COURT: I think that is actually --

4   MS. WOOD: Okay.

5   THE COURT: Just those two pages. All right. So

6   when we clean up the record, we have to make sure that's

7   done correctly. Okay?

8   MS. DUNN: I also have written down DTX 1444.

9   MS. WOOD: Is it PTX? I have PTX 1444.

10   MS. DUNN: Okay.

11   THE COURTROOM DEPUTY: I have that from yesterday.

12   MS. WOOD: From yesterday, exactly.

13   MS. DUNN: Okay. Great.

14   MS. WOOD: I also have DTX 1922 right after DTX

15   1920.

16   THE COURTROOM DEPUTY: Oh, I have that too. I

17   thought I said that one.

18   MS. WOOD: Maybe you did and I missed it. Okay.

19   THE COURTROOM DEPUTY: I have that one. I have

20   that.

21   MR. ISAACSON: I have an extremely minor point.

22   For DTX 1420, we should admit the first page to show it's

23   the 10K.

24   THE COURT: We should probably have that, yes. So

25   pages 1, 2, and 13 of Defense Exhibit 1420 are the only ones

1   that go into the record. Again, the thumb drive or whatever

2   you've got at some point has to be fixed.

3   Anything else?

4   MS. WOOD: Nothing, Your Honor.

5   MS. DUNN: Nothing, Your Honor.

6   THE COURT: All right. You all have done a good

7   job, and I'm pleased the case is moving.

8   So have a good weekend, stay safe and healthy.

9   Wear your masks if you're in public.

10   We'll see you at 9:00 Monday morning.

11   MS. WOOD: Thank you, Your Honor.

12   MS. DUNN: Thank you, Your Honor.

13   (Proceedings adjourned at 5:57 p.m.)

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          I certify that the foregoing is a true and
23
     accurate transcription of my stenographic notes.
24
                              _____
                                        /s/
25   Rhonda F. Montgomery, CCR, RPR

165